DOCUMENT RESUME

ED 280 966 CE 046 759

AUTHOR Corvalan, Oscar
TITLE Trends in Technical-Vocational and Secondary Education in Latin America.
INSTITUTION London Univ. (England). Inst. of Education.
PUB DATE May 86
NOTE 60p.; Paper presented at the Vocationalising Education Conference (London, England, May 7-9, 1986). Some tables contain small print.
PUB TYPE Speeches/Conference Papers (150) -- Reports - Descriptive (141)

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS Economic Development; *Educational Development; *Educational History; *Educational Trends; Foreign Countries; Political Issues; Regional Characteristics; Secondary Education; Social Change; *Technical Education; Trend Analysis; *Vocational Education
IDENTIFIERS *Latin America

ABSTRACT

The development of secondary education in Latin America has been more heterogeneous than in many other parts of the world. As late as the period between the two world wars, secondary education was largely concerned with preparing the national elites to take over privileged positions. Following World War II more attention was given to extending opportunities to enroll in secondary education. The tendency has been to attempt diversification of secondary education while remaining basically unchanged in terms of core curriculum, teaching force, facilities, and students' sociocultural background. With the sole exception of Cuba, and to some extent Nicaragua, no other Latin American countries have attained a diversification of their entire middle-level educational systems. Although compulsory vocationalized components have been introduced into the core curriculum of secondary education in several countries, most countries in the region continue to have parallel vocationalized systems with a predominant academic or general secondary education. Prevocationalization is more often understood by children as a hobby than as an initiation to technology and the world of work. Only about one-fourth of children will reach the upper level of secondary education, and these will continue to see themselves as a privileged group headed to the university. The importance ascribed to and development of vocational-technical education in the individual countries comprising Latin America must be viewed against existing social, economic, and political structures within the individual countries. (Nineteen tables and a nine-page bibliography are included.) (MN)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED280966

University of London Institute of Education
Department of International and Comparative Education

VOCATIONALISING EDUCATION CONFERENCE

7-9 May, 1986

TRENDS IN TECHNICAL-VOCATIONAL AND SECONDARY EDUCATION IN LATIN AMERICA

Oscar Corvalan V.

CIDE, P.O. Box 13.608, Santiago de Chile

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Department of International and Comparative Education
University of London Institute of Education
20 Bedford Way, WC1H 0AL

BEST COPY AVAILABLE

CE041759

D R A F T.

TRENDS IN TECHNICAL-VOCATIONAL AND SECONDARY EDUCATION IN LATIN AMERICA. By Oscar Corvalàn V., CIDE.p.O.Box 13.608, Santiago de Chile. April. 1986.

Introduction.

This paper intends to breifly review the development of technical-vocational education in Latin America in conection with the development of general secondary education prior to the recognition of the former as an integral part of secondary education leading to further education. It then concentrates on examining the major issues arising from the introduction of the lattest educational reforms in the degree of education, which reassessed the orientation of middle-level education in view of establishing a stronger link between education and employment.

The focus of the first section is on the social context of vocational education in Latin America and the examination of its historical evolution from colonial days up the the present times. Section two focuses specifically on the consequences of recent social, political and economic changes in technical-vocational education. Section three examines educational trends during the last two decades and their consequences over education and employment. Section four focuses on the major issues faced by both secondary and technical-vocational education in the region. A concluding section takes up the problem of prospects and eventual reforms of secondary and technical education to better answer the manpower requirements of societies where instability is the norm.

In preparing this paper, the author intended to spread some light on sometimes contradictory patterns of development of the 'vocational' component in the curricula at several levels of the educational systems of Latin America. Despite the fact that almost all countries in the region gained independence nearly one and a half century ago, the patterns of social, demographic, economic and political development followed by each of them

have been quite disimilar. As a result, development patterns in Latin America are more heterogeneous than the one observed in other regions of the world.

In such circumstances, the development of educational systems has also been afected by the general patterns of national development, and the same can be said about technical-vocational education. One may find, on the one hand, a range of countries where the number of people attending secondary level ranges from 10 to 60 per cent of the relevant age-group. On the other hand, the proportion of technical-vocational education within secondary level may also range between 4 and 66 per cent of total enrolments. What patterns, if any, of vocationalization can be found in such a variety of social contexts and educational systems?

We use here the term 'vocationalization' in the sense Lillis and Hogan (1983) and Psacharopoulos (1984) use it. That is to say, it refers to the secondary education curriculum reform intended to widen the set of future career options by transmitting skills and attitudes supposedly useful in better matching qualified labour and technicians supply and demand. Such a definition also touches upon reforms introduced to change the relationship between general and technical secondary education and the inclusion of elements of one core in the other core.

Technical and vocational education has been defined by UNESCO (1974) as "a comprehensive term refering to those aspects of the educational process involving, in addition to general education, the study of technologies and related sciences and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life". Such definition, however, could also be applied to other models of middle-level education, such as the polytechnical model and comprehensive schools. In the context of this paper, technical-vocational education is defined by contrasting it to general-academic secondary education, since the latter usually constitutes the frame of reference for the former. This is to say, whenever a secondary education curricula diversification has occurred, we would rather associate it with some type of comprehensive education.

1. Social Context and Historical Evolution.

It is assumed that the present social context is a result both of the developments that have ocurred since the colonial times and the present position of the countries in the international market. In this section an attempt is made to distinguish the major periods related to the development of secondary general and technical education in Latin America.

A first period may be distinguished since the countries gained political independence during the first quarter of the last century and the beginning of World War I. During this period middle-level education was most often linked to the Roman Catholic Theological colleges and/or limited to a few educational institutions directly linked to the national university. Paradoxical though may seem, in Latin America the colonial power and post-independence elites seemed more interested in the development of higher education than in secondary education, since the instruction of the elite offsprings was done through the tutoring system on a person-to-person basis. Most of the teaching was copied from the educational contents taught in Spain or Portugal, while also being open to the English and French influences. It is estimated that by the end of the XIX century some two per cent of the young were attending secondary education. Then, several secondary schools were created at the beginning of the XX century, and, because of the trade restrictions imposed during World War I the countries had to turn to whatever resources were available nationally. The elite started to be trained more and more in the region instead of sending the young abroad for study. Also, during this period several schools of industrial arts were created but were somehow assimilated into the first level of education. Nonetheless, this was the first recognition of manual work withing the educational system.

Secondary education consolidated during the second period which may roughly dated between World War I and World War II. Enrolments attained nearly 5 per cent of the young persons in the relevant age group (12 to 18). The basic social role accomplished by secondary education was the preparation of the national elites specifically for taking over privileged positions within the social, economic and political prevalent structures.

Schools of industrial arts and commercial education which developed during this period were excluded from secondary education which was almost exclusively oriented towards higher education. Vocational education during this period was specifically devoted to prepare people to undertake manual work. Special schools for girls were opened to mainly train them to become housewives; and several agriculture schools were created to provide for the needs of qualified labour to supervise and organize work in the latifundia. The content of general secondary education continued to be of an encyclopedial type, mainly based on european cultural experiences.(Vera Godoy,R.1979).

World War II provoked a significant number of adjustments, both at the international and national level. The hegemonic international power held by Europe was transferred to the United States to a significant degree, which started to actively intervene in the international market and to influence international and national politics. Several adjustments had to be made at the national level as a result of the perturbation caused in international trade. This compelled Latin American countries to produce nationally products which were previously imported from abroad. Such traumatic situations created the conditions for establishing the basis for a national development political and economic project in the most advanced countries of the region.

Table 1 shows that during the 1940s secondary general education more than dobled enrolments in several countries of the region, while population growth was only about one-fourth of enrolment growth. Such important expansion of middle-level education provoked the first diversification in the secondary education structure.

Several branches of secondary education were created to formalize industrial, commercial and agricultural schools, somewhere in between primary and secondary education. The main political goal was to integrate the recently born middle classes by offering their offspring training to become a qualified worker or middle-level technician and fill supervisory positions in production or bureaucratic positions in government employment. General secondary education tended to loose social status for the elite and started to be thought of almost exclusively as a way to reach the university. Technical-vocational education was meant exclusively to prepare students to be incorporated into the labour force, and not for the purposes of further education. Thus, by the end ofWorld War II the social and economic conditions were created for a period of rapid educational and social changes in Latin America.

A third period in the development of secondary and technical-vocational education may be understood as the one which taked place between 1945 and 1960. This was a period of establishing the national development strategies in the most advanced countries of the region. To support economic development, the countries expanded their technical_vocational schools considerably and some of them, like Brazil, Argentina and Colombia, created then special bodies to train incorporated adults in the labour force.(Corvalan, V.,Oscar.1976). This is also a period when technical-vocational education is definitively transferred from the primary to the secondary educational level. Table 1 shows that the growth of secondary education enrolments was faster between 1945 and 1960 than during the entire previous century. For instance, in Brazil secondary education enrolment rose from 155,558 in 1940 to 365,851 in 1950, and nearly one million in 1960. In Chile, they rose from 46,942 in 1940 to 95,726 in 1950, and to 197,898 in 1964. Also, in Paraguay they rose from 12,443 in 1951 to 15,619 in 1954. By the end of this period technical-vocational education was fully recognized as part of the second level education, but was still considered of a lower status and exclusively preparing for the world of work. The most salient event in the development of

secondary education during this period was the International Seminar held in Santiago, Chile, in January 1954 and January 1955, to review and redesign secondary education in Latin America, under the auspices of the Pan-american Union (predecessor of the Organization of American States). This meeting put forward a series of recommendations to improve secondary education in Latin America which later meant a considerable extention of technical-vocational education and a certain 'nationaliyation- of the curricula of general secondary education. Such educational changes were introduced inmediatly after the process of import substitution, as an economic development strategy, was put into practice by the most advanced countries of the region.

A fourth period in the development of education started at the end of the 1950s when the developmentalist approach was initiated under the auspices of the Alliance for Progress backed by the Kennedy administration and the United States. Under such an approach, education was viewed as a privileged instrument of modernization and the preparation of labour for an incipient industrialization process. Education in general, and technical-vocational education in particular, was meant to produce social mobility by producing occupational mobility. The 1960s was a privileged decade for conducting experiments in education, particularly in view of extending general and technical-vocational education.(See: Table 2).

In order to facilitate the process of modernization, which was fashionable at the beginning of the last mentioned period, during the 1960s almost every Ministry of Education set up a planning unit. The diagnosis of the education system multiplied-with a variety of methods and results- and a systematic process to collect education data was implemented.

Historically, never had the general secondary and technical-vocational education grew so fast as during the 1960s. Table 2 shows that the average annual rate of growth was 10.5. While the former grew at a rate of 11.5, the latter did it at a rate of 9.4. During the 1970s, the average annual rate of enrolments

growth was less than half in each mentioned category of education. Nonetheless, such growth is considerably higher than the relevant age-group's growth, which was slightly higher than 3 per cent, with a considerable standard deviation. Such developments allowed for integrating additional middle and lower-middle class groups, both into the labour market and political participation necessary to enlarge the basis of the political structure.

A second diversification process started by diversifying the different options available withing the Second Level Education and bydiversifying options within technical-vocational schools. The latter became a valid road to the university for those succeding in the entrance examinations, and to stop training qualified workers in order to concentrate in preparing middle-level technicians. Teachers training colleges are smoothly transferred from secondary to higher education. However, general secondary education retained a higher social status and a privileged road to university.

2. Crisis of the Developmentalist Approach and Consequences for Technical-vocational Education.

Probably never before has the Latin American region experienced such a rapid series of changes than during the period between 1960 and 1980. This period includes the beginning, spreading, and crisis of the developmentalist theories and approaches, together with a period of rapid population growth, urbanization, and economic growth. Nonetheless, it is also a period of educational crisis caused, among other reasons, by an increasing demand for education and a decreasing demand for the products of the educational system, as well as increasing unemployment and underemployment.

Demographic trends have been quite dramatic in Latin America, especially with regard to the age-groups in the youth category. Table 3 classifies the countries of the region into three groups, according to their urbanization period, birth rates level and life-expectancy, as well degree of internal development polarization. The first group includes: Argentina, Costa Rica, Cuba, Chile and Uruguay, representing those countries with an early urbanization

process, low birth rates, and long life expectancy. These are countries with a relatively highly developed educational system in which one-fourth to one-half of the total secondary educational enrollments are in technical-vocational education. Their average rates of population growth are at present quite close to those shown by developed nations. Trends in general and technical-vocational education vary from country to country. Argentina, for instance, has a long tradition of a strong parallel vocationalized system which enrolls about half of the students in secondary education. Costa Rica has introduced in the last decade a compulsory vocationalized component in the core curriculum of secondary education. Cuba represents a case of diversification of the whole second-level education-with the well known 'schools to the countryside' and the 'schools in the countryside'. Chile poses a parallel vocationalized system which developed quickly during the 1960s and stoped the development of technical-vocational education during the last decade. Uruguay also poses a parallel system, but has been steadly growing its vocational component during the last two decades.

The second group is made of countries with a late urbanization process, high birth rates and short life expectancy. It comprises all but countries mentioned in groups one and three. Because of the continuous growing in their young populations, the pressures on the social demand for education had been and continue to be high. The average annual rate of population growth is far above 3 per cent, as pointed out in Table 3. Educational enrolments have been growing even faster in these countries to catch up with demographic trends. With the exception of Nicaragua, which is difersifying the entire secondary level of education, most other countries have attempted to introduce a compulsory vocationalized component in the core curriculum, with a varying degree of sucess.

The third group is made of countries with an accentuated level of internal development polarization, which in the past presented very high birth rates but are expected to reduce them to about by half during the period 1980-2000. This group comprises Brazil,

Colombia, Mexico, Panama and Venezuela. Probably due to an accelerated industrialization process reached by Brazil in various development poles, enrolments at the second-level of education have shifted dramatically from general to technical and diversified education during the last decade. While the attempts made during the seventies in this country to vocationalize the entire secondary level failed, a strong technical-vocational education system developed (Piletti,N.1984) and the private sector was able to organize its own vocational training system to train incorporated adult workers.

The patterns of urbanization also differs in each of the aforementioned groups of countries. However, more than two-thirds of the region's young population is already living in urban areas. It is also expected that by the end of the century such proportion will reach about 80 per cent of the 15 to 24 age-group. Data shown in Table 4 indicate that the young population of countries in group one is mainly located in urban areas, with the exception of Costa Rica whose young population is steadly moving to urban areas.

Contries in group two represent a late urbanization process whose young population is slowly moving into the cities. By the end of the century nearly two-thirds of their young population will be urbanized. Probably the urbanization processes that are most affecting the region are the one experienced by some countries in group three, namely, Brazil, Mexico, Colombia and Venezuela, whose urban young population was more than 38 million in 1985, as oppossed to 14.8 million in rural areas. It is expected that 80 per cent of their young population will inhabit urban areas by the year 2000.

It should be realised that education could hardly revert or even stop such urbanization patterns, which directly affect the composition of middle-level education, as well as the internal distribution of enrolments within technical-vocational education. No matter what curricular changes are introduced in agriculture

education, it would be impossible for it to influence young people's rural exodus. What seems more probable that urban technical-vocational education will continue to suffer from additional social demand from those finishing rural primary education.

Table 5 shows a series of estimates and forecasts of labour forces, prepared by the ILO, indicating that for the period 1970-2000 labour participation rates of adolescents aged 15 to 19 years is dropping from 41.5 to only 32 per cent. In other words, this is an indication that nearly 10 per cent of this age group would be seeking admission in middle-level education during this period. Such a proportion of young people should be added to the number of newcomers from rural areas.

By 1980 enrolments in secondary education were 16 million, including 3.7 in technical-vocational education. However, young people incorporated into the labour force exceded such numbers. Table 6 indicates that in 1980 there were 22.3 million young workers in urban areas and 15.7 in rural areas. While the number of young workers in rural areas will remain about the same by the yerar 2000, there will be 16 million added to the urban labour force. Given such data, it is hard to see how technical-vocational education could ever prepare such a considerably high number of young people for work during the next two decades. Thus, unless profound reforms are introduced in the primary and secondary levels of education, people will continue to be incorporated into the labour force with no adequate preparation to carry out productive work.

Demographic and educational trends should be put into the economic development patterns of the countries in the Latin American region. Table 7 indicates the enourmous disparities existing in the region between countries with a rapid economic growth up to the 1980, like Brazil and Mexico (despite tehir present recession), and the majority of the countries whose average economic growth have been well below the region's average. Of course, the two mentioned countries comprise more than half of the region's young and total population, thus pushing up the region's average economic growth. What clearly emerges from the examination of Table 7 is the fact that up to 1973 the region, in general, was steadily increasing its per capita Gross Domestic Product (GDP), thus facilitating the transfer of ressources to increase education enrolments in general, and technical-vocational education in particular. Such situation has been suddenly reverted. From 1980 onwards the region's economic growth presents a negative sign, provoking many perturbances. By 1983 the region's GDP decreased by 5.3 per cent, causing millions of job loses.

Under such circumstances several contradictory influences are felt in the social, political and educational areas. Most countries, like Bolivia, Brazil, Costa Rica, Chile, El Salvador, Guatemala, Haiti, Honduras, Mexico, Peru, Uruguay and Venezuela, have regressed to the percapita GDP level that they had ten or more years ago. Such situation has caused social, labour and educational tensions with a direct influence over the political system, whose leaders sometimes try to partially cope with by offering additional training and/or educational opportunities.

Despite that this paper does not deal with recent political developments in Latin America, it should not be forgotten to mention that several countries are striving for democracy as a tool to seek alternative solutions to the serious social, economic, political and educational problems facing these countries. The disparities observed between demographic , economic and educational developments produced in several countries a high level of social tensions that tried to /be solved /by authoritarian military governments. Today,

when those problems have multiplied several times, the authoritarian regimes are compelled to transfer the political power to civilian politicians who are inheriting-in addition- the external debt burden incurred in by former governments.

Under such political and economical turnmoil it is difficult to predict the future of vocationalized secondary school curricula, since in some cases such an innovation was implemented during the rule of authoritarian regimes which the new democracies would like to get away from, no matter they might seem technically sound. Whether in military or civilian authoritarian governments, the introduction of compulsory vocationalized components in the core curriculum of secondary education were often introduced by technocratical planners under the advice of foreign aid agencies, thus providing a patckwork solutions to the problems of access to education and access to employment. Therefore, because of the pressing employment problems it is expected that politicians will increasingly turn to education to decrease social pressures, making of technical-vocational education and training systems preferred tools for social policy in the near future.

While the regional average annual rate of GDP growth was about 3 per cent during the period 1970-1980, the average labour force rate of growth was 2.9 per cent at national level and 4 per cent in urban areas. (Tables 7 and 8). Generally speaking, because of permanent increases in labour productivity and the introduction of capital intensive technologies, such 3 per cent economic growth could be reached with only a 1.5 per cent increase in labour. Thus, during the last decade, despite a considerable rate of economic growth attained in Latin America, unemployment and underemployment grew concomitantly.

Table 9 shows urban open unemployment rates for 12 countries from 1970 to 1984. A compar_ison of economic and employment trends during such period indicates that there exists a coincidence between the fall of economic growth and increases in unemployment,

which might be interpreted in the sense that the present unemployment affecting the region is caused by economic recession (or stagnation), rather than by demographic trends alone.

Unemployment trends have reverted previously observed relationships between levels of unemployment and schooling. According to data quoted in Table 10, by 1970 the rate of unemplyment was rather similar for the 20 to 29 years old workers with less than 4 years of schooling, those with 7 to 9 yerars of schooling and the ones with more than secondary education. People with incomplete primary and incomplete secondary education, however, presented slightly higher rates of open unemployment. Only in rural areas those with incomplete secondary education presented lower than the national average rate of unemployment, probably due to the fact that their proportion is relatively low in such areas. It is also interesting to observe in Table 10 that unemployment among women workers is higher than average, but it decreases as they present higher levels of schooling.

The long term effects of increased schooling reached by young people in the region between 1960 and 1980 can be better understood by examining data in Table 11 for Chile and Panama. During the whole period the former country presented a direct relationship between levels of schooling and unemployment; however, youth unemployment has tripled in every schooling category and the relationship between levels of schooling and unemployment has been maintained both for male and female young workers. Such a relationship can also be observed in the case of Panama, where traditionally young people with more than primary education have presented unemployment rates twice as high as the total average. However, increase in the level of schooling has lead to doubling unemployment rates for those with more than 10 years of schooling and considerably increasing the unemployment rates of those with some primary education. Also, unemployment rates for female young workers are considerably higher than those of male workers. Thus, more schooling, particularly for women, has meant higher rates of unemployment.

It would be foolish, however, to conclude that it is additional schooling that has caused such increases in unemployment. Data shown in this paper clearly established an imbalance between labour force increase and economic growth, as well as a considerable increase in the general unemployment and underemployment situation. Thus, the question remains with regard to what kind of education can avoid making things worse or at least nilifying the positive relationship between schooling and unemployment.

3. Educational Trens 1960-1980.

As was mentioned above, the Latin American educational systems never grew as fast at all levels than during the 1960s and the 1970s. Education as a main tool for modernization played a major rol in accelerating urbanization and the transfer of labour force from agriculture to-usually-the services sector. While during this period the proportion of industrial labour remained constant in most countries, its productivity increased considerably to reach the levels of economic growth previously examined. Nonetheless, since enrolment and economic growth ocurred parallel, it is difficult to attribute the latter to the former.

Table 12 shows the evolution of gross enrolment rates by level of education during the period 1960-1980. Many countries of the region have reached the goal of universal primary education. This is to say, almost every child who qualify can enter education. However, there persits high rates of repetition and drop out, which means that usually no more than a half of them are able to finish primary education. The fact that Table 12 points out a primary level enrolment rate over 100 per cent in 1980 means that when comparing enrolments with the age-group qualifying for primary shcool, becaus of the observed high rates of repetition, there might be more children enrolled than the ones who would qualify for such level.

Such pattern of enrolment is better understood when comparing enrolment rates in primary and secondary education. There is no reason for nearly 60 per cent of children dropping out when passing from one level to another. The fact is that they are repeating and dropping out when they attend different primary school classes, so that only about half are available for entering into secondary education. In any case, despite the serious repetition and drop out rates, Latin American education systems achieved an important goal in offering almost universal access to the primary education level, both to boys and girls.

Table 12 indicates that enrolment rates at the secondary level experienced an even more dramatic increase from 14.3 to 44.2 per cent in 20 years. Such an increase is even more impressive in the case of girls who increased their participation from 13.6 to 44.8. The fact that secondary education enrolments tripled in 20 years represented a huge transformation in this level's goals, methods, and to some extend, content of education. Secondary education was transformed from the education of the elite and a rather limited middle class into a mass education. Children from urban qualified workers were able to gain access and-at least partially-remain in the secondary schools; such phenomena produced an increadibly expectations revolution,since most secondary education remained university oriented. Such rapid increase in secondary and primary enrolments also generated a lot of improvisation in teachers' training, teaching materials, facilites and methodologies, which are partially responsible for the observed repretition and drop out rates. Table 13 indicates that while secondary enrolemtns grew at an average annual rate of 4.4 per cent in the 1970s, the teaching personnel only grew at a rate of 2.7 per cent in the same period.

The most important enrolment growth was, however, achieved by higher education that multiplied by more than four times its enrolments in 20 years. Such phenomena may easily be linked to the mass secondary education achieved during this period; to the extent that technical-vocational education would have required additional resources for its expanded implementation.

The average regional proportion of technical-vocational education remained around 23 per cent during the period 1960 to 1980 (Table 16), which suggest that the bulk of additional enrolments was offered in the academic general secondary track. It is difficult to realise, however, how an educational system that was designed to educate the elite and the middle class could serve the interests of the children from working class families. In fact, the content, methods and goals of teaching were ill-adapted to the socio-cultural background of the latter, generating again a source for high repetition and drop out rates, especially in those lacking the cultural and socio-economic background to succed in a type of education seen as university oriented. Nonetheless, what seems to be an educational failure is not a political mistake, since children from working class families were socialized and effectively convinced that their educational failure caused their lack of social mobility.

The fact that by the end of the period only 14.3 per cent of young people in the appropriate age-group were attending higher education is an indication of the failure of a strategy which makes the predominant goal of secondary education the academic preparation for further education. This is to say, almost two-thirds of secondary students have to be sacrified to unable a privileged third to enter higher education. Needless to say that such sacrified majority is ill prepared to productively join the labour force.

The increase in the educational level of the new generation may also be checked in Table 14. Data indicates that despite the fact that the number of young people doubled during the 1960-1980 period, they were able to considerably raise their years of school. Except of Brazil, in most countries the proportion of young people reaching secondary education (more than 6 years of schooling) increased from less than one-third to more than two-thirds.

Nonetheless, completion of secondary education by a considerably high proportion of young people did not allow them to secure better jobs or a vertical positive occupational mobility. Table 15 shows

the proportion of the employed in the middle and high occupational groups with 13 or more yerars of education and the proportion of young persons with such level education actually employed in such occupatonal strata, over the 1960s. While the proportion of people with some higher education increased in the better jobs, the proportion of people with some higher education acceding to them diminished. Such a contradictory evolution can be understood in a situation with abundant educated labour and scarse job opportunities in the middle and higher occupationl strata. With the exception of Argentina, during the 1960s to complete secondary education meant access to the same occupational strata that could be secured with primary education during the 1950s.

Therefore, the acquisition of higher levels of education is a necessit y for the families to at least retain the socio-economic statuses via enduring for their offsprings jobs in a similar occupational group. Nonetheless, the high value assigned to general secondary education and the illusions that it generates, as a road to university, may also be partially responsible for the failure to secure young people's better insertion in the labour market.

4. Trends and Issues in General and Technical-Vocational Secondary Education.

This section focuses on the social effects produced by the pattern of secondary education development experienced by most Latin American countries, the attempts made during the last decade to reform this education level to better relate its graduates to the world of work, and the major issues derived from them.

To better grasp to what extend the vocationalization of secondary education has affected the countries of the region, it is useful to examine data in Table 16 which shows the percentual distribution of secondary education main tacks' evolution during the period 1960 to 1980. The region's average proportion of technical-vocational and diversified secondary education has remained almost unchanged during that period. It only dropped about one per cent around 1970 probably because of the faster growth of general secondary education at that time. (Data inaccuracies could also be responsible for such slight variation).

With the exception of Panama and Venezuela, where the primary and secondary level have been redefined in its length and structure at least twice during the 1970s, the proportion of technical-vocational education has remained quite stable in most Latin American countries. What did considerably diminish was teachers training within secondary education, mainly because of its transfer to higher education.

However, to examine to what extend the diversification phenomena affected secondary education in Latin America, it is necessary to study the internal distribution of enrolments other than those of general secondary education. Table 17 provides some data on the sectorial distribution of non-general education enrolments in some Latin American and Caribbean countries. It is easily realized that, except in Cuba, business education concentrates more than half of technical-vocational enrdments.

In the Latin American region industrial education enrolments are closely related to the degree of development of the countries' industrial sector of the economy. Apart from Cuba, where one fourth of students enrols in agriculture education, the proportion of children enrolling in trades schools associated with the primary sector of the economy is less than 2 per cent. This fact reveals the low social status of agriculte-related occupations in most countries of the region, where between one-fourth and half of the labour force is employed in agriculture. The field of technology seems to be quite popular in the Caribbean region, but it is not clear the occupational outcome of such schools' graduates.[1]

In tracing enrolments linked to a curriculum diversification in secondary education, data available in Table 17 indicates that a portion of students in'unspecified programmes' might be associated with either some kind of comprehensive schools experiments or a diversified secondary education curricula. In any event, it is evident from available data that only Colombia, Panama and Venezuela have actually attempted to change the flow of secondary enrolments from the most traditional academically oriented tracks to the modern diversified curricula.

General secondary education continues to have an academic bias orientation towards the university, which excludes a proper preparation to enter the world of work. The percentual distribution of the curriculum according to areas of learning indicates that an average of around 10 per cent of the time-schedule is used to provide with some practical training. (Oliveros,Angel,1981).In Peru and Venezuela such percentage is 15.6 and 13.7, respectively, because of their attempts to introduce a diversified secondary curricula. However, in most countries such practical training represents some kind of arts and crafts work unrelated to any specific occupation. In the two aforementioned countries the introduction of a diversified

(1)One wonders whether they correspond to a compulsory vocationalised component injected in secondary education to familiarize children with production processes or merely some science study groups.

curricula has followed an erratic pattern of implementation and the introduction of measures to reverse to previous stages.

Table 18 indicated that most students attending teachers training colleges are female. While enrolments in technical-vocational education seems to be evenly distributed between boys and girls, it can be deduced from Tables 17 and 18 that female enrolment concentrated on training on axuliary health personnel, domestic economy and business graining, whereas boys enrol in industrial arts and agriculture education. In other words, no attempt seems to be made to transform the sexist occupational connotation which arises from directing boys and girls to specific educational tracks.

Limitations in the development of technical-vocational education and the lack of skills preparation of incorporated labour has lead to most Latin American countries to set up strong national vocational training institutes separated from the ministries of education. Table 19 shows their enrolment distribution for 1983 by training mode. While these training institutions were primarily created to train incorporated workers in the labour force, about half of their trainees at present are below the age of 25.

Had technical-vocational education produced enough qualified workers and technicians there would not be a reason to set up such vocational training institutions. However, /this it is not only a quantitative problem but mainly a qualitative one, in the sense that vocational education graduates have not been produced according to the labour market requirements in terms of trade-wise distribution and requested levels of competency.

A recent regional comparison of costs and benefits yielded by technical-vocational education and vocational training programmes (Correa,Hector.1984) indicates that the cost/benefit ratio is far more favorable to the latter. However, it is also pointed out that those results should be cautiously interpreted, since often both types of training are addressed to quite different clienteles. In addition, it is recommended that manpower estimations should be used in conjunction with rate of return approach to decide about training investments.

In the past, the more technical-vocational education tried to resemble general secondary education, to increase its own status, the more it lost its specificity to train qualified workers and concentrate on becoming a second chance opportunity to get access to university. However, neither the pretention to train middle-level technicians materialized according to follow up studies (Castro, C.de Moura et al. 1984; Corvalan V.,Oscar, 1980; Reyes, A. and Gomez M.A., 1979). Probably such a failure is pushing today planners to include technical training in higher education. On the one hand, the firms' occupational structures predominant in Latin America do not include a significan proportion of middle level technicians; on the other hand the few openings available in such occupational categories are traditionally filled out by internal promotion of adult qualified workers, and not by freshmen coming directly from technical-vocational schools.

Thus, lack of trade or occupations diversification for which training is available in technical-vocational education, and the low quality of preparation in available trades, has lead to several countries in Latin America to transfer technical training to higher education. The Chilean reform of higher education held in 1981 introduced two categories of non-university higher education institutes specifically to train technicians that otherwise could be prepared by a stronger technical education system. Also, vocational training institutions such as SENAI,SENA,INACAP,INCE, that previously devoted themselves to train qualified workers are now offering diploma courses for technicians and technologists. Such a development could be considered a second failure of Latin American technical-vocational education which has failed both to prepare qualified workers and properly trained technicians. In summary, as K.King (1984) has pointed it out, there is a fundamental problem with deciding where technical and vocational subjects should be taught and with regard to where they should be located institutionally. Because technical education is often found under the authority of several ministries is almost impossible to nationally plan it.

A review of reforms introduced to vocationalise secondary education in individual Latin American countries indicates that most efforts in such a direction have been carried out in conjunction with foreign aid development agencies, such as USAID, the World Bank and the Inter-American Development Bank (IDB). In attempting vocationalization, several patterns have been followed according to the country's educational and economic development level. Here are some cases.

In Bolivia middle level education is divided into two branches: academic and technical-vocational education, both providing for the possibility to continue into higher education. An attempt is presently made to create a new type of secondary education called technical-humanistic colleges, for which a new curricula is being defined. However, no imp act is being felt so far over the two aforementioned traditional branches. Also, between primary and middle level education an intermediate cycle is being structured as a pre-vocational cycle offerred in 36 schools on an experimental basis. A new curricular model called productive technical-humanistic curriculum is being design to be implemented on a pilot basis. Trainig of high level technicians, however, is being offerred in higher education institutions.

In Brazil the education law 5692 sanctioned in 1971 intended to vocationalize the entire secondary education.(Gusso,D.,1979). However, such an attempt failed (Pilleti,N.1984) because of lack of the necessary resources and the authoritarian decision to change the social functions played by secondary education in that country. Nonetheless, it did develop a strong technical-vocational education and a parallel subsystem of national vocational training institutions which offer both training for qualified workers and for middle and high level technicians to the incorporated adults and to unincorporated young persons.

In Chile middle level education is organized into two parallel systems, academic and technical-vocational, both providing for the possibilty of continuing in higher education. The most salient

fact is the reform introduced in 1981 which provides for two new types of non-university colleges to train technicians and technologists, while the development of middle level technical vocational education was frozen by the Ministry of Education during the last decade, arguing that there was no need to train more technicians.

In Colombia an important attempt has been made to introduce curriculum diversification in middle level education since 1971. With support from the World Bank it introduced 19 INEMs and a number of ITAS(Agriculture Schools) during the 1970s, with the purpose of providing a wider set of career options and better match graduates and labour market requirements. However, a recent evaluation (Psacharopoulos,G.1984) shows that when INEM graduates were compared to traditional academic secondary graduates in terms of employability, earnings and cognitive skills, no significant differences were found, despite the fact that the diversified INEMs unit costs were three times the one of academic tracks and double than vocational traditional schools(excluding business training)according to Reyes and Restrepo (quoted in Corvalan.1980). Thus, Psacharopoulos concludes that the differences are not sufficiently wide to conclude that the introduction of pre-vocational tracks results in secondary schooling being more economically efficient. Also, it was concluded that 'graduates from both types of schools spend roughly the same amount of time finding employment and in some cases graduates of the diversified schools are more prone to continue their studies at the university'.Such results have not prevented the planners to introduce as an important goal of the 1982-1991 education plan the diversification of secondary education.

The Costa Rican Ministry of Educationhas also considerably expanded its technical-vocational schools with an IDB loan and introduced in 1973 a diversified curricula during the second half of secondary education. Technical-vocational education is divided into two cycles: the first general,the second diversified. However diversification is not fully implemented.(Espinoza,A.1981)

In the Dominican Republic two middle level education reforms are underway. First, there is a programme to introduce diversification in the last two classes of secondary education in 22 schools. Second, because of the low development of technical vocational education, an IDB project is seeking to considerably expand this category of education. Despite much rethoric, the bulk of middle level education continues to be general secondary education.

Ihe Guatemalan Decree No.71 of 1976 sanctioned the new education law that provides for a diversified secondary education, after 8 years of primary education, in two fields of specialization: business training and industrial arts. The reform also introduced Experimental Basic Education Institutes with either an academic or occupational bias. However, no evaluation of the extent of such reform is available to judge its social impact.

Honduras has also introduced a curricular reform in its middle level education in order to provide for diversification of the technical-vocational education. Middle level education is divided into a first cycle of academic orientation and a diversified cycle which offers both general education and preparation for work in several economic sectors.

Middle level education in Panama is organized into two cycles: the first one offers general education; the second is then divided into two parallel subsystems: the academic track and technical-vocational education. Both are granted recognition to continue in higher education. An attempt made in the 1970s to vocationalise rural basic general education was latter discontinued, despite the apparent benefical results that it produced, mainly because of political reasons and teachers union opposition.

The Peruvian education reform established by Decree Law 19,326 of 21 May 1972, which initiate in 1975 profound curricular changes in secondary education in view of introducing a comprehensive type of schools named ESEPs, was deemphasized by Decree No.04 of 1983. According to the latter, secondary education lasts for five years.

The two first ones are intended to provided a general academic education. The last three years provide a vocational orientation and are divided into the following branches: cientifical-humanistic, business training, industrial arts, craft work, and agriculture education. Thus, the attempt to implement a comprehensive type of education reverted to the more traditional parallel organization of general and technical-vocational education. There seems to be that a proper evaluation of each curricular option is not available.

Uruguay has been reemphasizing technical-vocational education during the last ten years, as part of a parallel vocationalized system. As a result an important shift of enrolment has occured from the academic to the technical tracks, probably because students visualize the latter as providing a higher level of employability.

In summary, the tendency in several countries has been to attempt diversification of secondary education while remaining basically unchanged in terms of core curriculum, teaching force, facilities and the socio-cultural background of the students. With the sole exception of Cuba and to some extend Nicaragua, no other Latin American countries have attained a diversification of their whole middle level education systems. While compulsory vocationalized components havebeen introduced in the core curriculum of secondary education in several countries, the majority of the countries in the region continue to have parallel vocationalized systems with a predominant academic or general secondary education. Attempts to diversify the last classes of primary education or intermediate cycles between primary and secondary education, have resulted in timid introductions of arts and crafts work. Pre-vocationalization is more often understood by children as a hobby than as an initiation to technology and to the world of work. To the extend that those children who reach the upper level of secondary education represents about one-fourth of their cohort, they will continue to see themselves as a privileged group headed to university.Practical training offered to them seems useless. Such resources could more effectively invested in training school drop out who are striving for entering into manual work occupations.

CONCLUSIONS.

It is by no means easy to provide a recipe applicable to reforming technical-vocational education en every Latin American country. Economic and educational development disparities as well as cultural and demographic differences precludes from doing so. The question remains, however, on how should we plan technical-vocational adn secondary education to make it relevant to the world of work.

A first problem consists of defining what place should technical vocational education occupy withing the entire formal education system structure. It was pointed out above that one can find elements of it at the primary, secondary and higher education levels, as well as outside formal education in vocational training institutions. In trying to elucidate such problem it might be useful to better understand the countries' conceptual differences between on the one side, technical education and training, and, on the other side, between technical education and vocational education. Each of them seems to include a component of practical work and related theory, but they differ in their degree of proximity to tasks performed in specific occupations.

To the extend that vocational training institutions, set up to train incorporated adults from the labour force, have been switching their attention to the unemployed young populations, such close relationship between training and work has almost dissapeared, thus bringing the problem of balancing theory and practical work into a new institutional field.

Secondly, it has been argued that lack of trade diversification and poor teachning quality has led several countries to transfer the preparation of technicians from secondary education up to higher education. Since those trained in the former can not be degraded they are granted the title of middle level technicians while the latter are called upper-level technicians. Such a situation poses again the problem of the relationship between science, technology and education, in general, and the curriculum development options associated with it, in particular. Specifically, curricular decisions have been so far taken in terms of technical links of a chain rather

than in terms of the social context in which new and/or traditional technologies are inserted.

Thirdly, elements of technical-vocational education taught in general basic education do not present a proper sequence with what it is taught in secondary and higher education levels, since there seems to be no pre-requisites in technical and technological education other than those associated to mathematics, science and language. Therefore, it is by no means clear when should vocationalized components be introduced in the curriculum and what interrelationships should they have with general education and subsequent technical vocational education.

Fourthly, it is also important to realize what children and parents expect from pre-vocationalism and from technical-vocational education itself. As was pointed out, it is possible that nobody really expect more than a useful hobby from the former while the latter probably provides an alternative road to the university. In any event, it would be important to clarify when should elements of technical-vocational education be introduced and for what purpose. For vocationalized components that have not a clear sequence of learning within the educational system may not be taken seriously, either by children or teachers.

The importance attributed to academic or to vocational components of education is directly associated to their weight within final or entrance examinations at each level of education. To the extend that engineering and technology students continue to be selected on the basis of their academic achievement one could do little to enhance the 'social status' of technical-vocational subjects. The same applies with regard to entrance examinations into technical-vocational schools and the claimed value of pre-vocational studies. Technical-vocational schools that use educational attainments in mathematic and language as the sole basis for selection do little favour to improving the social prestige of technical-vocational subjects.

Fifth, the discussion whether to organize secondary education following a polytechnical pattern, a comprehensive model or a parallel system of technical-vocational education and general education could not be carried out without considering the overall developmet pattern followed by a specific country. Despite the fact that the relatively poorer countries are eager than the more advanced countries of the region to introduce a diversified curricula (Psacharopoulos,G.1984), does not necesarily provides for a proven path to improve the relationship between education and work.

The international conference of education held in 1974 under the auspices of Unesco recommended the introduction of a diversified curricula in secondary education and the development of technical-education within the higher education and basic general education levels. Such an approach seems to be a new pus to increase the social status of technical=vocational education.However, given the social role played by academic general education it could be predicted that such an approach will generate new conflicts within the structure of the education system, in which technical-vocational education appears to be the weakest link in the chain.

Lastly, after examining the patterns of educational development followed by Latin American countries one gets the feeling that the main issues are not necesarily diversification and vocationalization but how to provide for a better integration of science, technology and the socio-technical reality of working life, and how to combine education with productive work. It is clear, however, that education should help in integrating new and old socially efficient technologies, as well as to more evenly distribute the few job oppenings available in our countries. Therefore, together with discussing how to introduce vocationalization what is needed is to introduce a discussion on how to integrate scientific,mathematical, social and technical knowledge and skills within the productive processes predominant in each developing country. For, if children from working class families continue to receive an academic general education one may wonder the social disaster that such an educational approach may cause to their working lives.

TABLES

TABLE 1. Secondary Education Enrolments and Population Growth during the 1940s in 9 Latin American Countries.

País	Matrícula	% de aumento	Población[a]	% de aumento
BRASIL	1940: 155,588[b] 1950: 365,851	135	1940: 41,114,000 1950: 51,976,000	26
COSTA RICA	1941: 3,862[c] 1954: 14,062	265	1940: 610,000 1954: 915,000	48
CHILE	1940: 46,942[d] 1953: 95,726	104	1940: 4,985,000 1953: 6,072,000	22
EL SALVADOR	1935: 1,166[e] 1954: 11,208	868	1935: 1,531,000 1954: 2,122,000	39
MEXICO	1940: 20,295[f] 1954: 74,297	266	1940: 19,763,000 1954: 28,850,000	46
PANAMA	1948: 10,277[g] 1953: 15,720	53	1948: 758,000 1953: 863,000	14
PARAGUAY	1951: 12,433[h] 1954: 15,619	26	1951: 1,429,000 1954: 1,530,000	7
REP. DOMINICANA	1930: 1,358[i] 1955: 9,239	580	1930: 1,256,000 1954: 2,347,000	87
URUGUAY	1949: 26,287[j] 1954: 38,560	47	1949: 2,353,000 1953: 2,525,000	7

a. United Nations, Statistical Office, "Estimates of Total Population: 1920-1954", Demographic Yearbook, 1954, p. 114.

b. Ministério da Educacão e Cultura, Instituto Nacional de Estudos Pedagógicos, A Educação Secundária no Brasil, 1955, p. 11.

c. Seminario Interamericano de Educación Secundaria, Santiago de Chile, 1954-1955, Estudio Realizado sobre la Segunda Enseñanza en Costa Rica, p. 5.

d. Conferencia Regional sobre Educación Primaria Gratuita y Obligatoria en América Latina, Lima, 1956, La Educación Primaria y la Economía en Chile, p. 62.

e. Seminario Interamericano de Educación Secundaria, Santiago de Chile, 1954-1955, Informe sobre Naturaleza y Fines de la Educación Secundaria en El Salvador, p. 2-3.

f. Seminario Interamericano de Educación Secundaria, Santiago de Chile, 1954-1955, Naturaleza y Fines de la Educación Secundaria en México, p. 34.

g. Contraloría General de la República, Dirección de Estadística y Censo, Estadística Panameña, enero de 1956, p. 19.

h. Ministerio de Educación y Culto, Departamento de Estadística, (Datos estadísticos suministrados a la Unión Panamericana en 1955).

i. Secretaría de Estado de Educación y Bellas Artes, Educación para la Paz, 1955, p. 42.

j. Consejo de Enseñanza Secundaria y Preparatoria, (Datos estadísticos suministrados a la Unión Panamericana en 1955).

Source: Union Panamericana.Estado Actual de la Educacion Secundaria en America Latina.Washington D.C.1957.

Table Enrollment Trends in General Secondary, Teachnical Education and Teachers Training in Latin America. 1960, 1970, 1975, and 1980.(Thousand & percentage).

Streams	1960[1]	(%)	1970[1]	(%)	1975[1]	(%)	1980[2]	(%)
General Sec.	2.449	(64.8)	7.294	(71.2)	7.698	(65.7)	12.282	(72.9)
Technical	971	(25.7)	2.395	(23.4)	3.458	(27.5)	3.664	(23.0)
Teachers Tr.	358	(9.5)	558	(5.4)	569	(4.8)	651	(4.1)
Total	3.778	(100.0)	10.247	(100.0)	11.727	(100.0)	15.945	(100.0)

Sources: 1)UNESCO: Evolución y Situacion Actual de la Educacion en America Latina.
Fuentes Santillana.Madrid.1977.
2)UNESCO: Statistical Yearbook 1982.

Average Annual Rates of Growth	1960-1970	1970-1980
General Secondary Education	11.5	5.3
Technical-Vocational Education	9.4	4.3
Teachers'training schools	4.5	1.6
Total	10.5	4.5

TABLE N°3

LATIN AMERICA: VOLUME , RELATIVE IMPORTANCE AND GROWTH RATES OF YOUNG POPULATION (1960 - 2000)

	POPULATION AGED 15 TO 24 YEARS (thousands)			PERCENTAGE OF POPULATION AGED 15 TO 24 YEARS IN TOTAL POPULATION			GROWTH RATE YEARLY AVERAGE	
	1960	1980	2000	1960	1980	2000	1960-80	1980-2000
Group A a/								
Argentina	3.315.7	4.509.4	5.366.8	16.1	16.7	16.2	1.5	0.9
Costa Rica	213.9	509.3	598.9	17.3	23.0	17.7	4.4	0.8
Cuba	1.312.5	1.912.8	1.554.6	18.7	19.7	13.3	1.9	-1.9
Chile	1.382.8	2.326.8	2.575.1	18.2	21.0	17.2	2.6	0.8
Uruguay	401.0	476.8	519.5	15.8	16.4	15.6	0.9	0.4
Group B b/								
Bolivia	634.3	1.055.6	1.890.1	18.5	19.0	19.4	2.6	3.5
Ecuador	791.0	1.587.9	2.930.6	17.9	19.8	20.1	3.6	3.4
El Salvador	455.4	956.3	1.737.6	17.7	19.9	20.0	3.8	3.0
Guatemala	721.0	1.449.3	2.493.1	18.2	20.0	19.6	3.6	2.7
Haiti	684.0	1.122.9	1.928.6	18.3	19.3	19.6	2.5	2.7
Honduras	363.5	706.3	1.432.7	18.7	19.1	20.5	3.4	3.6
Nicaragua	266.9	550.5	1.057.0	18.1	20.1	20.5	3.7	3.5
Paraguay	316.8	658.2	1.073.8	17.8	20.8	19.9	3.7	2.5
Peru	1.835.1	3.517.2	5.840.4	18.0	20.0	19.0	3.3	2.0
Dominican Republic	591.6	1.274.4	1.813.4	18.2	21.4	19.4	3.9	1.8
Group C c/								
Brazil	13.076.8	25.005.5	35.028.1	18.3	20.4	18.7	3.3	1.7
Colombia	2.788.4	5.657.2	7.191.7	17.9	21.9	18.9	3.6	1.2
Mexico	6.604.9	14.057.2	23.613.0	17.9	20.2	20.4	3.9	2.6
Panama	195.1	383.2	518.9	17.8	20.2	18.4	3.4	1.5
Venezuela	1.295.8	3.277.5	5.455.1	17.2	21.0	20.1	4.7	2.6

SOURCE: CELADE: Forecasts prepared on basis of official information
a/ Countries of early urbanisation, low birth rate and long life-expectancy.
b/ Countries of late urbanisation, high birth rate and short life-expectancy.
c/ Countries of accentuated polarisation.

TABLE Nº 4

LATIN AMERICA: PERCENTAGES OF TOTAL POPULATION AND OF YOUNG POPULATION LIVING IN URBAN AREAS

(1970, 1980, 2000)

	PERCENTAGE OF TOTAL URBAN POPULATION			PERCENTAGE OF URBAN POPULATION AGED FROM 15 TO 24 YEARS		
	1970	1980	2000	1970	1980	2000
Group A a/						
Argentina	78.5	81.6	86.0	75.4	78.4	83.3
Costa Rica	38.8	45.7	59.4	42.1	48.3	61.2
Cuba	59.6	66.9	78.9	56.6	63.4	75.2
Chile	75.2	78.7	84.0	77.5	80.5	85.5
Uruguay	82.0	83.8	86.6	80.8	82.9	85.3
Group B b/						
Bolivia	38.2	44.7	56.6	46.1	52.6	57.7
Ecuador	39.6	44.7	56.0	43.6	49.0	59.7
El Salvador	39.5	44.2	54.4	44.6	49.3	59.0
Guatemala	34.4	36.5	43.1	36.1	39.0	43.4
Haiti	19.8	23.1	31.9	24.6	28.0	37.8
Honduras	33.2	38.8	53.0	37.0	42.9	57.1
Nicaragua	47.0	53.8	66.0	49.2	56.2	67.8
Paraguay	37.0	38.6	44.5	42.3	38.9	44.7
Peru	58.0	63.4	72.6	63.6	68.5	77.4
Dominican Republic	39.4	46.8	62.0	43.2	50.5	65.0
Group C c/						
Brazil	55.8	62.6	74.8	57.0	63.7	75.4
Colombia	59.3	66.3	77.4	64.0	70.3	80.4
Mexico	58.9	67.3	76.3	60.7	67.5	77.5
Panama	47.8	55.3	67.7	52.9	60.4	71.2
Venezuela	72.1	76.2	82.6	75.9	79.5	84.6

SOURCE: CELADE: Forecasts prepared on basis of official information

a/ Countries of early urbanisation, low birth rate and long life-expectancy.

b/ Countries of late urbanisation, high birth rate and short life-expectancy.

c/ Countries of accentuated polarisation.

TABLE N° 5

ECONOMIC PARTICIPATION RATES OF ADOLESCENTS AGED FROM 15 TO 19 YEARS AND 20 TO 24 YEARS

1970-2000

COUNTRIES	15 - 19 YEARS				20 - 24 YEARS			
	1970	1980	1990	2000	1970	1980	1990	2000
Argentina	46.3	42.1	38.6	35.3	65.3	66.1	66.5	66.6
Bolivia	44.8	41.4	39.7	34.6	59.6	60.2	61.8	64.4
Brazil	43.2	39.8	36.6	34.1	58.4	60.0	62.6	66.1
Colombia	38.6	33.8	29.9	27.3	58.8	58.5	58.6	59.5
Costa Rica	45.7	41.4	37.6	34.4	59.6	61.3	63.7	67.0
Cuba	34.0	30.9	28.3	26.0	55.8	57.2	59.4	61.3
Chile	29.1	26.6	24.5	22.5	57.4	59.6	61.9	63.6
Dominican Republic	37.1	34.0	30.6	27.0	53.5	53.2	53.3	53.8
Ecuador	46.2	42.4	38.5	35.0	60.3	61.4	63.3	66.3
El Salvador	45.7	42.3	38.9	35.6	59.5	60.0	61.2	63.5
Guatemala	45.4	42.0	38.2	34.2	54.3	54.6	54.9	55.7
Haiti	65.6	61.1	56.0	50.4	82.0	80.3	78.2	75.6
Honduras	49.8	46.8	43.2	39.5	57.6	57.1	57.4	58.1
Mexico	41.9	38.3	35.0	32.2	58.3	59.7	61.5	64.3
Nicaragua	45.4	41.8	38.1	34.4	59.2	60.1	61.8	64.5
Panama	46.0	39.9	34.8	31.3	68.0	66.5	66.1	66.8
Paraguay	51.0	47.3	43.3	39.5	62.3	63.7	65.9	69.3
Peru	31.0	28.7	26.6	24.9	54.6	55.9	58.2	61.3
Uruguay	45.2	41.1	37.5	34.2	67.1	67.8	68.3	68.3
Venezuela	35.7	32.6	30.0	27.6	56.3	58.2	60.3	62.0
Caribbean								
Barbados	45.6	41.9	38.4	35.0	74.4	75.6	76.7	76.9
Guyana	38.3	34.3	31.1	28.4	62.6	63.7	64.7	65.2
Jamaica	40.3	36.1	32.8	30.5	75.0	76.4	78.0	80.4
Trinidad & Tobago	38.0	34.7	31.7	28.7	65.9	67.0	67.4	67.6
Latin America	41.5	37.8	34.7	32.0	59.2	60.3	61.8	64.2

SOURCE: ILO. Estimates and forecasts of labour force, 1950-2000, Geneva, 2nd. ed., 1977.

TABLE N°6

LATIN AMERICA: ECONOMICALLY ACTIVE POPULATION AGED FROM 10 TO 24 YEARS BY URBAN-RURAL AREA

(1970, 1980 AND 2000)

(Thousands of persons)

	1970		1980		2000		PERCENTAGE OF URBAN ACTIVE POPULATION		
	URBAN	RURAL	URBAN	RURAL	URBAN	RURAL	1970	1980	2000
Group A a/									
Argentina	1.888.9	649.4	2.191.7	597.5	2.749.0	506.0	74.4	78.6	84.5
Costa Rica	70.1	123.8	124.3	155.6	194.2	125.0	36.2	44.4	60.8
Cuba	371.3	293.7	515.4	306.1	527.7	169.1	55.8	62.7	75.7
Chile	574.9	213.4	797.5	234.7	956.6	184.5	72.9	77.3	83.8
Uruguay	201.3	58.2	221.9	53.6	260.6	45.1	77.6	80.5	85.2
Group B b/									
Bolivia	170.6	271.3	251.7	295.0	494.9	431.4	38.6	46.0	53.4
Ecuador	213.6	377.8	342.9	459.6	793.8	597.5	36.1	42.7	57.1
El Salvador	170.5	280.8	272.1	351.1	594.4	472.1	37.8	43.7	55.7
Guatemala	199.3	409.9	298.1	530.7	582.3	784.6	32.7	36.0	42.6
Haiti	143.6	674.3	213.6	815.9	468.2	1.107.2	17.6	20.7	29.7
Honduras	84.4	208.5	152.6	262.9	446.3	327.6	28.8	36.7	57.7
Nicaragua	84.1	124.4	140.4	148.5	338.3	196.0	40.3	48.6	63.3
Paraguay	113.3	165.9	157.8	250.9	301.8	361.3	40.6	38.6	45.5
Peru	658.1	482.3	1.005.6	557.7	1.969.8	636.2	57.7	64.3	75.6
Dominican Republic	192.1	360.1	327.5	448.9	588.4	419.1	34.8	42.2	58.4
Group C c/									
Brazil	4.966.7	5.714.0	7.628.6	6.268.0	12.995.7	5.594.9	46.5	54.9	69.9
Colombia	1.377.5	968.2	2.078.8	1.062.5	3.041.0	857.5	58.7	66.2	78.0
Mexico	2.605.3	2.150.2	4.293.3	2.500.1	8.725.1	2.667.4	54.8	63.2	76.6
Panama	86.3	88.8	133.7	98.5	213.0	85.8	49.3	57.6	71.3
Venezuela d/	667.4	241.4	1.126.2	318.8	2.077.8	378.1	73.4	77.9	84.6
Latin America	14.839.3	13.856.4	22.273.7	15.716.6	38.318.9	15.946.4	51.7	58.6	70.6

SOURCE: CELADE, forecasts prepared on basis of official information.

a/ Countries of early urbanisation, low birth rate and long life-expectancy.

b/ Countries of late urbanisation, high birth rate and short life-expectancy.

c/ Countries of accentuated polarisation.

d/ Excluding active population aged from 10 to 14 years.

Table 7. CRECIMIENTO DEL PRODUCTO INTERNO BRUTO A PRECIOS DE MERCADO, POR HABITANTE /
GROWTH OF PER CAPITA GROSS DOMESTIC PRODUCT, AT MARKET PRICES

(Tasas anuales medias / *Average annual rates*)

País / *Country*	1950-1960	1960-1965	1965-1970	1970-1975	1975-1980	1980	1981	1982	1983
Argentina	1.0	2.8	2.8	1.2	0.3	-0.8	-7.7	-6.6	1.5
Bolivia	-1.7	2.8	3.7	3.3	0.6	-2.0	-3.5	-11.1	-10.0
Brasil / *Brazil*	3.6	1.5	5.0	7.8	4.4	4.8	-3.7	-1.3	-5.3
Colombia	1.7	1.6	2.9	3.5	3.2	1.9	0.1	-1.2	-1.1
Costa Rica	3.3	2.8	3.7	3.4	2.2	-2.0	-4.8	-9.7	-0.3
Chile	1.7	1.4	2.7	-3.9	6.0	6.2	4.0	-15.4	-2.2
Ecuador	2.0	1.9	1.2	8.1	3.5	2.0	1.0	-1.1	-6.0
El Salvador	1.8	3.6	0.9	2.5	-1.8	-11.3	-10.9	-8.2	-2.8
Guatemala	0.9	2.4	2.9	2.6	2.9	0.9	-2.1	-6.2	-5.5
Haití / *Haiti*	0.1	-2.6	-0.3	1.5	3.3	5.1	-5.2	-4.8	-1.1
Honduras	-0.2	2.0	1.8	-0.8	3.6	-0.7	-2.2	-5.0	-3.8
México / *Mexico*	3.0	3.8	3.5	3.2	3.7	5.5	5.1	-3.1	-7.6
Nicaragua	2.1	6.7	0.6	1.8	-5.8	6.8	2.0	-4.3	1.3
Panamá / *Panama*	2.0	5.1	4.6	1.9	3.5	10.6	2.0	3.3	-1.7
Paraguay	0.1	2.1	2.1	3.8	6.9	8.0	5.4	-5.9	-5.8
Perú / *Peru*	2.8	3.4	0.9	1.8	-0.7	1.2	1.2	-2.2	-13.1
República Dominicana / *Dominican Republic*	2.7	-0.3	4.7	6.0	2.5	3.7	1.6	-0.6	1.6
Uruguay	0.9	-0.3	1.5	1.5	4.0	5.4	1.3	-10.3	-5.3
Venezuela	3.4	3.7	1.3	1.3	-0.1	-5.0	-5.2	-2.1	-7.4
Total	**2.3**	**2.5**	**3.2**	**3.7**	**3.0**	**3.2**	**-0.7**	**-3.3**	**-5.3**

Source: ECLA/CEPAL:Informe Economico 1984.Santiago.1985.
146

TABLE N°8

LATIN AMERICA: ANNUAL AVERAGE GROWTH RATES OF TOTAL ACTIVE POPULATION AND OF ACTIVE POPULATION AGED 10 TO 24 YEARS (1970 - 1980)

	TOTAL FOR COUNTRY				URBAN AREAS			
	ECONOMICALLY ACTIVE POPULATION				ECONOMICALLY ACTIVE POPULATION			
	TOTAL	YOUNG (10-24)	FEMALE (10-24)	FEMALE (20-24)	TOTAL	YOUNG (10-24)	FEMALE (10-24)	FEMALE (20-24)
Group A a/								
Argentina	1.3	1.0	1.5	2.2	1.8	1.5	1.9	2.5
Costa Rica	3.9	3.7	4.9	5.8	5.5	5.9	6.1	6.7
Cuba	2.0	2.1	2.9	1.8	3.1	3.3	3.7	2.6
Chile	2.8	2.7	3.2	3.4	3.1	3.3	3.4	3.6
Uruguay	0.3	0.6	1.1	1.3	0.6	1.0	1.3	1.5
Group B b/								
Bolivia	2.4	2.2	2.8	3.3	4.5	4.0	4.2	5.1
Ecuador	3.1	3.1	4.2	5.1	4.6	4.8	5.1	6.0
El Salvador	3.1	3.3	4.1	4.8	4.3	4.8	5.1	5.7
Guatemala	3.4	3.1	4.1	5.1	4.3	4.1	4.5	5.6
Haiti	2.0	2.3	2.2	2.7	3.7	4.1	3.8	4.1
Honduras	3.4	3.6	7.3	7.5	5.5	6.1	6.7	6.9
Nicaragua	3.5	3.3	4.3	5.7	5.1	5.3	5.3	6.4
Paraguay	4.0	3.9	4.3	5.7	4.5	3.4	4.0	5.6
Peru	3.0	3.2	4.0	4.2	4.0	4.3	5.1	4.9
Dominican Republic	3.4	3.5	3.6	4.6	5.3	5.5	5.3	5.9
Group C c/								
Brazil	3.0	2.7	3.5	4.3	4.3	4.4	4.7	4.9
Colombia	3.3	3.0	3.6	4.4	4.4	4.2	4.1	4.8
Mexico	3.6	3.6	4.2	5.8	4.9	5.1	5.5	7.2
Panama	3.2	2.9	3.7	4.5	4.6	4.5	4.6	5.2
Venezuela	4.4	4.8	5.4	6.5	5.0	5.4	5.7	6.7
Latin America	2.9	2.9	3.5	4.3	4.0	4.1	4.4	4.9

SOURCE: CELADE, forecasts prepared on basis of official information.
a/ Countries of early urbanisation, low birth rate and long life-expectancy.
b/ Countries of late urbanisation, high birth rate and short life-expectancy.
c/ Countries of accentuated polarisation.

TABLE Nº 9

LATIN AMERICA: URBAN OPEN UNEMPLOYMENT RATES

COUNTRY		1970	1978	1979	1980	1981	1982	1983	1984
Argentina	a/	4.9	2.8	2.0	2.3	4.5	4.7	4.0	4.0
Bolivia	b/	-	4.5	7.6	7.5	9.7	9.4	13.3	13.3
Brazil	c/	6.5	6.8	6.4	6.2	7.9	6.3	6.7	7.8
Colombia	d/	10.6	9.0	8.9	9.7	8.2	9.3	11.8	13.6
Costa Rica	e/	3.5	5.8	5.3	6.0	9.1	9.9	8.5	7.9
Chile	f/	4.1	13.3	13.4	11.7	9.0	20.0	19.0	18.4
Mexico	g/	7.0	6.9	5.7	4.5	4.2	4.1	6.9	6.5
Panama	h/	10.3	9.6	11.6	9.8	11.8	10.4	11.2	...
Paraguay	i/	-	4.1	5.9	4.1	2.2	5.6	8.4	...
Peru	j/	6.9	8.0	6.5	7.1	6.8	7.0	9.0	...
Uruguay	k/	7.5	10.1	8.3	7.4	6.7	11.9	15.5	14.3
Venezuela	l/	7.8	5.1	5.8	6.6	6.8	7.8	10.5	13.9
Latin America	m/	6.6	6.5	6.0	5.8	6.6	6.6	7.8	8.0

SOURCE: PREALC Report based on available home surveys.

a/ Greater Buenos Aires. Average April-October. 1984: April.
b/ La Paz. 1978 and 1979: second semester; 1980: May-October; 1983: April; 1984: first quarter.
c/ Metropolitan areas of Rio de Janeiro, Sao Paulo, Belo Horizonte, Porto Alegre, Salvador y Recife. Average 12 months; 1980: average June-December; 1984: average 6 months.
d/ Barranquilla, Bogota, Cali and Medellin. Average March, June, September and December. 1978: average March, June and December; 1984: Average March and June.
e/ Urban National. Average March, July and November; 1984: March
f/ Greater Santiago (INE). Average four quarters: 1984: average two quarters.
g/ Metropolitan areas of Mexico City, Guadalajara and Monterrey. Average four quarters. 1984: Average first quarter.
h/ Urban National. 1980: Census advance; 1981 and 1982 and 1983: urban metropolitan region.
i/ Asunción, Fernando de la Mora, Lambaré and urban areas of Luque and San Lorenzo.
j/ Metropolitan Lima. 1970: August-September; 1978: July-August; 1979: August-September; 1980: April; 1981: June.
k/ Montevideo. Average two semesters. 1984: first semester.
l/ Urban National. Average two semesters. 1984: first semester.
m/ Includes only those countries for which yearly information is available. Estimated average.

TABLE 10

LATIN AMERICA: OPEN UNEMPLOYMENT RATES AMONG YOUNG PEOPLE AGED 20 TO 29 YEARS BY SEX AND REGION ACCORDING TO LEVEL OF EDUCATION

(Percentages)

Education level	Total country	Capital	Others urbans	Rural
Both sexes				
Without schooling[1]	5.7	9.7	8.9	5.0
1 to 3 years[1]	5.8	8.4	7.8	4.5
4 to 6 years[1]	6.9	8.1	7.6	5.3
7 to 9 years[2]	5.6	5.3	6.2	3.5
10 to 12 years[2]	7.3	6.9	6.4	2.7
13 years and more[2]	5.9	5.8	6.3	6.9
Men				
Without schooling[1]	4.9	13.5	8.9	3.7
1 to 3 years[1]	4.9	10.0	7.7	3.3
4 to 6 years[1]	6.3	8.4	7.2	4.2
7 to 9 years[2]	5.9	5.8	6.6	3.2
10 to 12 years[2]	9.2	7.9	7.8	3.9
13 years and more[2]	5.1	4.8	5.7	4.7
Women				
Without schooling[1]	8.1	6.3	8.5	8.4
1 to 3 years[1]	8.8	6.3	8.0	10.2
4 to 6 years[1]	8.8	7.6	8.6	10.3
7 to 9 years[2]	4.9	4.3	5.5	4.6
10 to 12 years[2]	4.5	5.3	4.6	4.7
13 years and more[2]	7.3	7.5	7.3	9.5

Source: CIDE 1970, Uniform Programme, Table 20. UNESCO/CEPAL/UNDP, "Development and Education in Latin America and the Caribbean" Project, Final Reports N°3, Education and the problems of employment, op. cit. Table 29.

[1] Average of fifteen countries: Bolivia, Colombia, Costa Rica, Chile, Ecuador, El Salvador, Guatemala, Honduras, México, Nicaragua, Panamá, Paraguay, Peru, Dominican Republic, Venezuela.

[2] Average of six countries: Argentina, Colombia, Costa Rica, El Salvador, Honduras Paraguay.

TABLE Nº 11

CHILE AND PANAMA: OPEN UNEMPLOYMENT RATES IN POPULATION AGED 18 TO 24 YEARS BY EDUCATION LEVEL AND SEX, 1960, 1970 AND 1980

	1960			1970			1980		
	Total	Men	Women	Total	Men	Women	Total	Men	Women
CHILE									
Years of schooling									
0-3	4.0	5.5	1.8	1.3	1.0	0.4	13.5	13.6	17.8
4-6	5.9	7.0	3.0	1.6	1.9	0.8	14.2	15.5	10.3
7-9	8.9	8.5	10.2	2.8	2.8	2.8	19.9	21.1	16.4
10 and more	10.4	10.9	9.4	6.1	7.0	4.7	25.3	24.8	26.0
Total	6.4	7.5	4.4	2.5	2.6	2.0	20.6	20.7	20.5
PANAMA									
Years of schooling									
0-3	1.7	1.4	3.9	4.3	2.8	10.5	10.5	6.9	24.4
4-6	7.4	6.9	9.0	9.8	7.0	16.3	11.1	10.6	12.9
7-9	12.3	10.1	15.8	15.4	15.5	23.7	16.7	14.9	21.0
10 and more	10.6	9.0	12.1	9.6	8.5	10.8	19.2	18.6	19.9
Total	6.5	5.3	10.1	9.3	6.5	15.3	14.7	12.9	18.4

Source: Estimated on basis of official information obtained from population census samplings and employment survey.

Source: CEPAL., Situation and Prospects of Youth in Latin America. E/CEPAL/Conf.75/L2. 17 August 1981.

TABLE Nº 12

LATIN AMERICA: GROSS EDUCATION RATES, ACCORDING TO SEX, BY LEVEL OF EDUCATION, 1960 - 1980

YEAR	TOTAL			PRIMARY			SECONDARY			HIGHER		
	MF	M	F	MF	M	F	MF	M	F	MF	M	F
1960	40.1	41.5	38.6	73.1	75.0	71.2	14.3	14.9	13.6	3.0	4.2	1.8
1965	46.1	47.4	44.8	82.2	83.6	80.8	19.4	20.1	18.7	4.2	5.6	2.8
1970	52.5	53.7	51.2	92.4	93.4	91.3	24.9	25.7	24.1	6.3	8.0	4.5
1975	58.6	60.0	57.2	98.0	99.4	96.6	35.4	36.2	34.5	11.8	13.6	10.0
1980	63.3	64.1	62.4	103.9	105.2	102.5	44.2	43.5	44.8	14.3	16.0	12.6

Source: UNESCO: Statistical Yearbook 1982. Paris, UNESCO, 1982.

TABLE Nº 13

LATIN AMERICA: GROWTH OF SCHOOL ENROLMENT AND OF TEACHING PERSONNEL, BY LEVEL.

1965 - 1980

(thousands)

YEAR	SCHOOL ENROLMENT				TEACHING PERSONNEL			
	PRIMARY	SECONDARY	HIGHER	TOTAL	PRIMARY	SECONDARY	HIGHER	TOTAL
1965	34.419	6.819	915	42.153	1.072	506	111	1.690
1970	43.983	10.669	1.640	56.291	1.363	793	160	2.316
1980	56.290	12.407	3.655	72.353	2.021	828	334	3.183
% Δ 1965 - 1970	5,2	9,4	12,4	6,0	4,9	9,4	7,6	6,5
% Δ 1970 - 1980	3,9	4,4	11,6	4,3	5,1	2,7	14,3	5,3

SOURCE: UNESCO. Statistical Yearbook. Paris, UNESCO, 1982.

Table 14 CHILE, BRAZIL, PANAMA AND PERU: EDUCATION LEVELS OF POPULATION AGED FROM 15 TO 24 YEARS, 1960-1970-1980

	Total (thousands)		0	1-3	4-6	7-9	10-12	13 and more	N.D.
Chile									
1960	1.322.4	100.0	9.3	18.4	38.6	19.9	9.3	1.3	3.1
1970	1.662.2	100.0	3.4	10.6	31.1	26.2	15.9	3.5	9.6
1980	2.440.7	100.0	1.7	2.5	13.8	32.5	41.3	6.4	1.7
Brazil									
1960	13.644.2	100.0	35.8	31.8	21.3	4.8	3.9	1.8	0.4
1970	18.652.0	100.0	30.6	17.9	28.1	5.4	3.9	1.2	12.8
1980	24.904.1	100.0	17.0	18.3	47.7a/		13.9b/	3.0c/	-
Panama									
1960	197.2	100.0	18.3	16.2	40.2	15.3	8.4	1.3	0.2
1970	269.6	100.0	10.4	12.2	43.7	19.1	12.2	2.3	0.1
1980	361.8	100.0	4.8	5.2	31.8	26.1	24.5	6.9	0.8
Peru									
1961	1.822.0	100.0	29.9	28.4	23.1	10.3	5.9	1.0	1.4
1972	2.563.9	100.0	12.9	21.2	25.9	20.1	13.8	3.4	2.4
1981	3.443.5	100.0	6.3	35.9		45.3		9.2	3.3

Source: Population census, except for Chile, 1980, National Employment Survey (October to December 1980).

a/ 1 to 4 years.
b/ 9 to 11 years.
c/ 12 years and more.

TABLE Nº 15

CHANGES IN INTEGRATION OF YOUNG PEOPLE AGED 20 TO 24 YEARS, HAVING 13 OR MORE YEARS EDUCATION, INTO THE MIDDLE AND HIGHER OCCUPATIONAL STRATA; 1960 - 1970

(Porcentages)

Countries	1960		1970	
	% of employed aged 20 to 24 years in middle and higher occupational strata having 13 or more years education	% of 20-24 age group with 13 and more years education in middle and higher strata	% of employed aged 20 to 24 years in middle and higher occupational strata having 13 or more years education	% of 20-24 age group with 13 and more years education in middle and higher strata
Argentina	12.6	76.4	19.7	76.7
Chile	7.1	93.1	12.1	83.8
Colombia	3.7	92.4	7.9	84.6
Costa Rica	16.2	92.2	14.8	89.9
Mexico	2.4	82.5	10.8	69.0

Sources: OMJECE 1960, tables 2 and 3, Special Programme.
OMJECE 1970, table 4, Special Programme.

TABLE 16 Distribution of general Secondary and Technical Education in Latin American 1960-1980
(Porcentages)

País		1960 (1)			1965-1970 (1)			1979-1980 (2)		
		Secondary	Normal	Technical	Secondary	Normal	Technical	Secondary	Normal	Technical & Diversified
Argentina	(2)	26,8	24,5	48,7	22,9	21,0	56,1	34,1	....	65,9
Bolivia	(3)	84,1	2,2	13,7	82,8	6,5	10,7	93,7	....	6,3
Brasil		73,7	7,7	18,6	72,3	10,8	16,9	29,0	11,8	59,2
Colombia	(4)	57,7	11,5	30,8	69,1	9,2	21,7	84,0	....	16,0
Costa Rica		95,8	....	4,2	89,5	....	10,5	77,5	....	22,5
Cuba		73,4	6,1	20,5	71,4	10,5	18,0	81,8	5,2	13.0
Chile	(5)	70,9	2,9	26,2	66,8	1,1	32,1	68,6	....	31.4
Dominican R.		58,1	0,6	41,3	70,1	0,4	29,5	91,5	0.6	7,9
Ecuador		60,3	10,6	29,1	56,2[a/]	11,0	32,8	88,8	....	11,1
El Salvador	(6)	60,0	9,7	29,4	68,3	....	31,7	37,4	4,7	57,9
Guatemala		81,3	8,4	10,2	73,3	11,1	15,6	66,8	14,2	18,0
Haití		77,4	1,0	21,6	76,7[b/]	0,7	22,6	96,0	0,8	3,2
Honduras	(7)	63,8	12,5	23,7	73,0	12,9	14,1	76,2	3,8	20,0
México		70,7	5,7	23,6	71,7	4,0	24,3	85,2	4,4	10,4
Nicaragua		60,5	15,8	23,7	83,6	7,2	9,2	69,8	18,3	11,9
Panamá	(8)	68,9	3,6	27,5	66,4	31,7	1,9	76,2	0,6	23,2
Paraguay		79,7	13,0	7,3	86,3	8,4	5,3	95,0	....	5,0
Perú		80,1	....	19,9	83,5	....	16,5	84,9	....	15,1
Uruguay		74,9	2,6	22,5	73,5	4,3	22,2	74,4	0,3	25,3
Venezuela	(9)	58,1	17,5	24,4	64,5	3,2	32,3	91,6	3,5	4,9

Source: (1) UNESCO Anexo estadístico Conferencia de Ministerios de educación, Diciembre 1971; (2) Estadística de la Educación 1975 Ministerio de educación y cultura; (3) Aspectos cuantitativos de la educación. Ministerio de la educación y cultura. Departamento de estadística escolar. La Paz, Bolivia 1974. Datos de 1971; (4) La educación en Colombia. Boletín N° 306. Enero 1977; (5) Sector fiscal. Rendimiento escolar de la enseñanza por región y provincia según grado y estudios. Año 1975. Superintendencia de educación pública. Sección estadísticas. Octubre 1976; (6) Ministerio de educación. Memoria de labores 1975-1976. Agosto 1976 (En secundaria se incluye bachillerato académico e industrial); (7) Ministerio de educación. Honduras. Septiembre 1977; (8) Avance de información Boletín N° 58. Diciembre 1975 y (9) Memoria y cuenta 1975. Ministerio de educación. Tomo II, Anuario estadístico.

a/ Porcentages 1967.
b/ Idem 1966

(2) UNESCO. Statistical yearbook, Paris 1982.

Table 17. OTHER SECOND GRADE INSTRUCTION: STUDENTS BY STUDY SECTOR AND BY SEX.

LATEST YEAR AVAILABLE

COUNTRY	YEAR	SEX	STUDY SECTOR ACCORDING TO NICE*						
			TOTAL NUMBER OF PUPILS	BUSINESS TRAINING	ARTS AND INDUSTRIAL TRADES	TECHNOL-OGY	AGRICULTURE FORESTRY AND FISHERY	OTHER PROGRAMMES **	UN SPECIFIED
Antigua	1975	MF	102	26.5	-	53.9	-	19.6	-
Argentina	1977	MF	846.200	51.5	41.6	-	2.3	4.1	0.5
		F	403.039	66.2	26.0	-	1.1	6.2	0.5
Brazil	1974	MF	782.827	60.8	20.9	-	3.0	14.8	0.5
		F	338.538	69.4	10.6	-	0.8	18.6	0.6
Colombia	1977	MF	308.823	45.2	16.7	-	6.5	2.8	28.7
Cuba	1976	MF	145.205	17.8	-	56.8	25.4	-	-
		F	42.594	40.9	-	41.5	17.6	-	-
Chile	1977	MF	168.823	32.8	45.1	-	1.9	20.2	-
		F	77.269	51.5	4.2	-	1.0	43.3	-
Dominica	1976	MF	567	35.1	4.2	5.3	2.6	52.8	-
		F	464	42.9	-	-	-	57.1	-
Ecuador***	1976	MF	42.940	75.6	12.9	-	7.1	4.2	0.1
		F	25.857	93.5	0.1	-	1.1	5.1	0.1
El Salvador	1976	MF	25.762	82.1	10.4	-	5.3	2.2	-
		F	11.500	93.9	2.1	-	0.6	3.4	-
Montserrat	1976	MF	57	100.0	-	-	-	-	-
		F	24	100.0	-	-	-	-	-
Panama	1977	MF	43.505	49.6	19.6	-	3.3	6.9	21.6
		F	22.961	68.9	0.8	-	0.9	9.9	29.6
Paraguay	1977	MF	5.427	77.2	5.9	-	8.1	8.8	-
		F	2.363	84.5	1.0	-	-	14.5	-
St. Lucia	1975	MF	340	26.1	49.6	24.3	-	-	-
		F	59	93.2	6.8	-	-	-	-
St. Vincent	1976	MF	108	28.7	14.8	35.2	-	21.3	-
		F	31	100.0	-	-	-	-	-
Surinam***	1977	MF	4.472	-	24.0	52.7	12.9	10.4	-
		F	1.145	-	55.6	1.0	3.7	19.7	-
Venezuela***	1976	MF	158.582	4.1	8.8	-	2.3	5.6	79.2
		F	79.483	7.0	2.0	-	0.8	8.7	81.5

* Normalised International Classification of Education.

** Includes the following types of education: Arts and applied arts. Religion and theology. Training of auxilia health personnel. Domestic economy. Transport and communication and services sector.

*** Full day only.

TABLE Nº 18

LATIN AMERICA: FIRST PRIMARY ENROLMENT LEVEL, GENERAL, NORMAL AND DIVERSIFIED AND TECHNICAL-VOCATIONAL ACCORDING TO SEX, BY COUNTRY (LATEST YEAR AVAILABLE)

	TOTAL			GENERAL EDUCATION		NORMAL EDUCATION		DIVERSIFIED AND TECHNICAL-VOCATIONAL (2,664,865 = 231)	
	YEAR	(25,946,272) MF	F	MF	F	MF	F	MF	F
Argentina	1979	1,296,839	684,513	441,617	279,953	---	---	855,222	404,560
Bolivia	1980	170,710	73,991	---	---	---	---	---	---
Brazil	1978	2,537,949	1,358,213	736,041	367,558	298,541	268,896	1,502,967	721,759
Chile	1980	538,309	284,786	369,180	202,802	---	---	169,129	79,982
Colombia	1980	1,811,003	962,708	---	---	---	---	---	---
Costa Rica	1980	135,830	72,014	105,220	56,586	---	---	30,610	15,428
Cuba	1979	1,089,441	515,167	852,852	421,111	52,849	37,798	138,740	55,258
Dominican Republic	1977	249,049	---	228,092	---	1,548	---	19,769	---
Ecuador	1979	535,445	263,382	475,857	226,471	---	---	59,588	36,911
El Salvador	1980	73,030	36,929	24,280	10,436	3,451	2,560	42,299	21,933
Guatemala	1980	156,612	70,809	104,588	45,190	22,256	13,080	29,768	12,739
Haiti	1979	91,247	---	87,080	40,228	687	---	2,080	---
Honduras	1977	89,861	43,386	68,431	31,991	3,435	2,442	17,997	8,953
Mexico	1980	4,741,850	2,214,442	4,042,188	1,750,873	207,997	138,669	491,665	324,900
Nicaragua	1980	139,741	74,328	120,552	63,000	25,605	2,027	16,691	9,101
Paraguay	1978	181,126	89,735	96,559	47,674	---	---	4,567	2,061
Panama	1980	171,273	89,328	130,496	67,837	984	661	39,793	21,628
Peru	1978	1,095,085	502,732	929,832	428,970	---	---	165,253	73,762
Uruguay	1978	180,678	---	130,584	91,153	4,511	---	45,663	---
Venezuela	1979	820,600	445,568	751,356	---	29,040	26,692	40,264	---

SOURCE: UNESCO, Statistical Yearbook, Paris 1982.

TABLE Nº 19

ENROLLED PARTICIPANTS: IMPLEMENTING PERSONNEL, BY TRAINING MODE, 1983

COUNTRY	INSTITUTION	LEVELLING PRIOR TO COMMENCEMENT	VOCATIONAL TRAINING OF YOUNG PEOPLE		VT OF ADULTS	PROMOTION/ FURTHER TRAINING	TOTAL
			Apprenticeship	Other Modes			
Argentina	CONET	-	31.636	115.166	36.717	3.608	187.127
Bolivia	FOMO	-	-	-	3.970*	65*	4.035*
Brazil	SENAC	132.404	698	224.101	325.389	264.383	946.975
	SENAI	-	76.103	-	447.433	-	523.536
	SENAR	-	-	-	45.398	107.455	152.853
Colombia	SENA	-	16.077	-	343.619	-	359.696
Costa Rica	INA	-	785	-	19.959	8.187	28.931
Chile	INACAP	4.062	608	-	9.534	293	14.497
R. Dominicana	DIGEV	-	2.121	-	-	-	2.121
Ecuador	SECAP	-	2.558	-	1.375	39.690	43.623
El Salvador	CTFP	-	83	4.269	10.780	-	15.132
Guatemala	INTECAP	-	2.130	-	14.558	14.090	30.778
Honduras	INFOP	2.254	936	493	2.755	22.587	29.025
Mexico	CATEX	-	-	-	-	247	247
	ICIC	-	-	-	37.910	-	37.910
Panama	INAFORP	-	-	-	890	476	1.366
Paraguay	SNPP	-	39*	-	3.331*	831*	4.201*
Peru	SENATI	328	2.014	-	16.418	-	18.760
	SENCICO	-	-	-	19.639	-	19.639
Venezuela	INCE	2.791	9.668	75.342	153.354	22.360	263.515
TOTAL		141.839	145.456	419.371	1.493.029	484.272	2.683.967**

* Graduated participants.

** Discrepancy with total number of enrolled participants of implementing personnel of Table 15 is due to INECEL not supplying a breakdown of this information by training mode and it is not included in this table.

Source: CINTERFOR: Statistical Yearbook on Vocational Training in Latin America. Montevideo. 1985.

BIBLIOGRAFIA

Acuña, Guillermo y otros. Perspectiva de la Educación Técnico Profesional. Corporación de Promoción Universitaria, CPU. Santiago, 1984. 146 p.

Aguilar, Mario y Alfaro, José. Articulación de los Sistemas Escolares y Extraescolar de Enseñanza Técnica y Profesional. 2. Costa Rica. Santiago. OREALC, 1979. 32 p. + Anexo (mimeo).

Arguedas Garbanzo, Mayra y Elieth Chavarría Jimenes. Situación y Perspectiva de la Educación Comercial Oficial Sector Diurno de Costa Rica. Universidad de Costa Rica, s.f. 133 p.

Arguedas Marín, Rafael A. Alvaro Espinoza Vindas. Preparación, Aplicación y Evaluación de Módulos para la Capacitación y Perfeccionamiento de la Educación Técnica y Profesional. Santiago, OREALC, 1984. 151 p.

Arrien, Juan; Edgar Silva; Antonio Torres. Educación y Trabajo Productivo: Los casos de Nicaragua y Perú. Santiago, UNESCO/OREALC, 1984. 40 p.

Bansart, Andrés. "Educación Contínua" (II). En: Cuadernos de Educación. Caracas, Cooperativa Laboratorio Educativo, 1983. N° 103. 96 p.

Barato, Jarbas N. "O Processo de Formacao Profissional e a Experiencia do SENAC". En: Formacao e Exercício Profissional, serie Debates, Sao Paulo: SENAC, N° 2, 1978. pp. 7-19.

Berry, Albert. "Replanteamiento de la Tasa de Retorno de la Educación en los Países en vía de Desarrollo". En: Educación, Formación Profesional y Empleo, SENA, Ministerio de Trabajo y Seguridad Social, Servicio Nacional de Aprendizaje, SENA, Colombia. Mayo de 1984. pp. 83-106.

Borcelle, Germaine. La Igualdad de Oportunidades para las Jóvenes y las Mujeres en la Enseñanza Técnica, La Formación Profesional y el Empleo. París, UNESCO, 1983. 182 p.

Borrero A., Luis Carlos. Estudio Evaluativo del Centro de Capacitación Popular de Adultos Alfonso López Pumarejo. Centro de Capacitación Popular de Adultos "Alfonso López Pumarejo" (CCPAL), Río de Janeiro, 1983. s.p.

Briones, Guillermo. Evaluación de los Institutos Técnicos Industriales. Bogotá, Ministerio de Educación Nacional, 1980. 311 p.

Britos, M. Pedro, Grazziella Corvalán, Germán Kratochwill y otros. La Educación Técnica y Profesional en el Desarrollo del Paraguay. Asunción, Centro Paraguayo de Estudios de Desarrollo Económico y Social (CEPADES); Centro Paraguayo de Estudios Sociológicos (CPES); Instituto de Estudio Iberoamericanos (IIK), 1979. sp.

Brusilovsky, Silvia. La Promoción del Trabajo Productivo en los Programas Escolares. Estudio de Casos. París, UNESCO, 1979. 61 p.

Cabral de Andrade, Antonio. Articulación de los Sistemas Escolar y Extraescolar de Enseñanza Técnica y Profesional. Brasil, Santiago. OREALC, 1980. 20 p.

Carbajo, Eduardo. Estudio de Casos sobre Aplicación de la Recomendación Revisada de la UNESCO Relativa a la Educación Técnica y Profesional. 1. Argentina. Santiago, OREALC, 1982. 50 p. (mimeo).

Carnoy, Martín. Educational Innovation in Latin America. Caracas. CINTERPLAN, 1979. 26 p. (mimeo).

Castillo, Gabriel. El Rol de la Orientación en la Innovación en Educación en América Latina y el Caribe. El Rescate de la Identidad en los Centros Educativos. Santiago, OREALC, 1982. 24 p. (mimeo).

Castro, Eduardo. Análisis Crítico de la Reforma de la Educación Media Chilena. Santiago, PIIE, 1982. s. ed... 22 p.

Castro S., Eduardo H. "Análisis crítico de la Reforma de la Educación Media Chilena". En: Transformaciones en la Educación Chilena bajo el Régimen Militar. Santiago, PIIE, 1982. 45 p.

Castro, Claudio de Moura y otros. Determinantes de la Educación en América Latina: Acceso, desempeño y equidad. Río de Janeiro, ECIEL, 1984. 248 p.

CENAFOR. Experiencias e Perspectivas sobre Escolas de Producao no meio Urbano no Brasil. Sao Paulo, 1983. 240 p.

CENAFOR. Educacao e Trabalho: Experiencias junto a camadas populares. CENAFOR, Sao Paulo, 1983. 129 p.

CENAFOR. Educacao e Trabalho: Uma experiencia em cuestao. Rio Branco-Acre. Sao Paulo, 1984. 128 p.

CEPADES. Educación Técnica, Formación Profesional y Desarrollo Socioeconómico. Asunción, CEPADES, N° 21, 1982. 261 p.

CERPE. Estudio de Cambios e Innovaciones en la Educación Técnica y la Formación Profesional en América Latina y el Caribe. 10. Venezuela. Centro de Reflexión y Planificación Educativa, CERPE. Caracas, OREALC, 1979. 110 p. + anexo.

CERPE. La Educación Técnica: Descripción General. Caracas, Centro de Reflexión y Planificación Educativa, 1982. N° 9, 32 p.

Cerri, Marianela; Uribe, Alfonso. Impacto de los Cursos de Capacitación en Jóvenes Desocupados: Conclusiones sobre una experiencia. CIDE, Santiago, 1984. 84 p.

Cerri, Marianela; Neumann, Elisa. El Desarrollo Juvenil en Condiciones de Marginalidad. Proyecto de Capacitación para Jóvenes Desocupados ¿una alternativa?. CIDE, Santiago, 1983. 89 p.

Ciavatta, Franco; María Aparecida y Claudio de Moura Castro. Limites e possibilidades da Educacao Tecnica na America Latina: um Estudo comparativo. Bogotá, Programa de Estudos Conjuntos de Integracao Latinoamericana. ECIEL. Proyecto Educación. Versión Preliminar I. XXIX. Seminario ECIEL. 26-30 Agosto 1979. 88 p. (mimeo).

CINTERFOR. Reunión Técnica sobre Determinación de Necesidades de Formación Profesional. Montevideo, CINTERFOR-OIT, 1981. 76 p.

CIEP. Articulación de los Sistemas Escolar y Extraescolar de Enseñanza Técnica y Profesional. Uruguay. Santiago, OREALC, 1980. 42 p.

CIPE. Articulación de los Sistemas Escolar y Extraescolar de Enseñanza Técnica y Profesional. 1. Perú. Centro de Investigación y Promoción Educativa, CIPE, Santiago. OREALC, 1979. 37 p.

Corvalán, O. Vocational, Training Institutions in Latin America. Tesis para obtener en grado de Master of Arts en la Universidad de Toronto, 1976. 169 p.

Corvalán, Oscar y Silvia Llomovatte. Dilemas y Tendencias de la Enseñanza de Nivel Medio en América Latina. Santiago, CIDE/CINTERFOR, 1978. 19 p.

Corvalán, Oscar. Nuevas Prioridades de la Educación Técnica y la Formación para el Trabajo en América Latina. San José, BID, 1980. 83 p. (mimeo).

Corvalán, Oscar. Aprenticeship in Latin America: The Inacap Program in Chile. A Case Study. East Lansing, Michigan, Non-Formal Education Information Center, 1981. 102 p.

Corvalán, Oscar. "La Formación Profesional de los Jóvenes Desfavorecidos en los Países en Desarrollo". En: Revista Internacional del Trabajo, Ginebra, OIT, Vol 102, N° 2, 1983. pp. 281-295.

Corvalán, Oscar; Cariola, Leonor; Cerri, Marianela. Empleo y Capacitación en los Talleres Informales de Santiago. CIDE, Santiago, 1983. 168p.

Corvalán, Oscar; Leonor Cariola y Marianela Cerri. El Potencial Educativo de los Talleres del Sector Informal. Santiago, Centro de Investigación y Desarrollo de la Educación. CPEIP 442.

Corvalán, Oscar; Lizarzaburu. Los Programas de Capacitación para Trabajadores del Sector Informal en América Latina. París, IIPE, 1985. 181 p.

Corvalán, Oscar. La Formación Profesional de la Juventud en América Latina: Crisis y Oportunidad. Santiago, CIDE, 1985. 57 p.

Corvalán, Grazziella. Educación Técnica Industrial de Nivel Medio: Resultados de un Estudio de Casos. Asunción, Centro Paraguayo de Estudios Sociológicos (CPES), 1979. 83 p.

Corvalán, Grazziella. Educación Técnica de Nivel Medio y Mercado de Trabajo. Asunción. CPES, 1979. 225 p. (mimeo).

Corvalán, Grazziella. El Acceso a la Educación Técnica y Agropecuaria: Sus características y determinantes. Asunción, CPES, 1979. N° 12, 129 p. (mimeo).

Corvalán, Grazziella y Domingo M. Rivarola. La Enseñanza Media en el Paraguay. Asunción, CPES, 1979. 66p.

Corvalán, Ana María. Educación Media en Chile: Los cambios experimentados en la orientación general, estructura y composición de los últimos diez años. Perspectivas futuras. Santiago, CPU (Documento de Trabajo N° 217), 1980. 38 p. (mimeo).

Correa, Héctor. Programas de Educación Ocupacional en Países Latinoamericanos. Reseña de Evaluaciones. Montevideo, CINTERFOR, 1984. N° 64. 76 p.

Chamberlain, Francisco. Educación Técnica y Educación Popular. Perú, Ilo, s.e. 1981. 15 p.

Chang, Ligia; Reuben, Sergio; Sánchez, Ligia. Los Talleres Públicos de Capacitación-Producción en el INA de Costa Rica. Montevideo, Centro Interamericano de Investigación y Documentación sobre Formación Profesional (CINTERFOR), 1985. 107 p.

Chateau, Jorge. Programa de Educación Campesina. CIDE-FLACSO, Santiago, 1985. 127 p.

Chávez Pérez, Guillermo. Programas Experimentales de Educación y Formación de "Obreros Profesionales". Santiago, OREALC, 1983. 63 p.

Dasso, Elizabeth. Las Aspiraciones Ocupacionales y de Profesionalización en los Estudiantes de Talara, San Martín y Paucartambo: Un Análisis Comparativo. Lima, INIDE, 1982. 78 p. Anexos.

Delpiano, Adriana. Proyecto de Capacitación de la Mujer Pobladora. Vicaría Zona Norte: Estudio de Caso. FLACSO, Santiago, 1984. 57 p. + anexos.

De Simone, José A. El Desarrollo de los Subsistemas de Educación Técnica y Profesional en América Latina. Santiago, OREALC, 1982. 18 p.

Ducci, María Angélica. Formación Profesional: vía de apertura. Montevideo, CINTERFOR/OIT, N° 61, 1983. 90 p.

Egaña, Loreto y Abraham Magendzo. El Marco Teórico-Político del Proceso de Descentralización Educativa (1973-1983). Santiago, PIIE, 1983. 135 p.

Espinoza, Alvaro. La Iniciación Técnica y Profesional en la Enseñanza Geral y la Formación de Técnicos de Nivel Medio en Costa Rica. Santiago: OREALC, 1980. 86 p. + anexos. (mimeo).

Galeano, Luis A. La Educación y las Ocupaciones de Carácter Técnico en el Paraguay. Asunción CEPADES, 1979. 24p. + anexos.

Gallart, María Antonia. La Capacidad de Sustitución de la Educación Formal por Aprendizaje en el Trabajo. Un estudio de los casos limítrofes entre las ocupaciones medias y manuales en la industria de la construcción de Buenos Aires. Buenos Aires, CIE, 1984, N° 33. 193 p.

Gallart, María Antonia. Estado Actual sobre Educación Superior y Empleo en América Latina. Caracas, CRESALC, 1985. 41 p.

Gallart, María Antonia. La Racionalidad Educativa y la Racionalidad Productiva: Las escuelas técnicas y el mundo del trabajo. Buenos Aires, CENEP, 1985. 170 p.

Gómez, Víctor Manuel. "Crisis, Interpretación y Prospectiva del Desarrollo Educativo en América Latina". En: Revista Latinoamericana de Estudios Educativos. México: CEE, Vol IX, N° 4, 1979. pp. 71-88.

Gómez Campo, Víctor Manuel; Giles Hermet Goulard y Jorge Munguia E. "Tendencias de la Educación Técnica y La Formación Profesional Extraescolar en México". En: Educación, Empleo y Desarrollo Económico, México, CNTE, Vol. III. N° 40, 1982. pp. 199-269.

Gómez, Víctor Manuel. "Relaciones entre Innovación Tecnológica, Empleo y Calificación Ocupacional. El Caso de la Informatización de la Producción". En: Educación, Formación Profesional y Empleo, SENA, Ministerio de Trabajo y Seguridad Social, Servicio Nacional de Aprendizaje, SENA, Colombia. Mayo 1984. pp. 295-324.

Gómez B. Hernando y Eduardo Libreros D. "Formación Profesional y Mercados de Trabajo". En: Educación, Formación Profesional y Empleo, SENA, Ministerio de Trabajo y Seguridad Social, Servicio Nacional de Aprendizaje, SENA, Colombia. Mayo 1984. pp. 251-268.

González, Luis Edo. y Abraham Magendzo. Análisis de la Educación Técnico-Profesional. Santiago, PIIE, 1982. 59 p.

Gusso, Divonzir A. Estudios de Cambios e Innovaciones en la Educación Técnica y la Formación Profesional en América Latina y el Caribe. Brasil. Santiago, OREALC, 1980. 75 p.

Hallak, Jacques y Francoise Caillods. Education, Training and the Traditional Sector. Paris, UNESCO. International Institute for Educational Planning, 1981. 143 p. + anx.

Hevia, Ricardo. Cambios en la Administración Educacional: El proceso de traspaso a las Municipalidades. Santiago, PIIE, 1982.

Ibarrola, María de. La Política de Formación para el Trabajo. Cuatro Retos para la Investigación Educativa. DIE-CINVESTAV-IPN, 1983. 17 p.

Kratochwil, Germán y Pedro Britos Mora. Egreso de la Enseñanza Técnica y Profesional en el Paraguay. Aspiraciones, Expectativas y Situación Social de los Alumnos. Asunción Programa Paraguayo-Alemán de Educación y Desarrollo, 1979. 88 p.

Kuenzer, Acacia. Pedagogia da Fabrica as Relacoes de Producao e a Educacao do Trabalhador. San Pablo, Cortez Editora-Autores Asociados, 1985. 203 p.

Lillis, Kevin and Hogan Desmond. "Dilemmas of Diversification: problems associated with vocational education in developing countries". In: Comparative Education. Volume 19 N° 1, 1983. pp. 89-107.

López P., Arcesio. "Estrategias para una mejor correspondencia entre los estudios de pregrado y el desarrollo nacional". En: Educación, Formación Profesional y Empleo. SENA, Ministerio de Trabajo y Seguridad Social, Servicio Nacional de Aprendizaje, SENA, Colombia, Mayo 1984. pp. 201-218.

Magendzo, Abraham; Nancy Barra y Luis Edo. González. Estudio Comparado sobre los Cambios e Innovaciones en la Educación Técnica y la Formación Profesional en América Latina y el Caribe. Santiago, Oficina Regional de la UNESCO para América Latina y el Caribe, 1981. 131 p.

Magendzo, A.; Barra Nancy. "La Educación Técnica y la Formación Profesional en Chile durante los últimos 20 años". En: Revista LA de Est. Ed. CEE. México, Vol. XII N° 1, 1982. pp. 77-98.

Magendzo, Abraham y Adriana Delpiano. Cambios Propuestos a la Educación Media. Santiago, PIIE, 1982. 41 p.

Magendzo, Abraham y Luis Edo. González. Estudios de Casos sobre "Aplicación de la Recomendación Revisada de la UNESCO Relativa a la Educación Técnica y Profesional". 2. Chile. Santiago, UNESCO/OREALC, 1982. 71 p. (mimeo).

Magendzo, Salomón. "Logros Educativos-laborales de Jóvenes de Sectores Populares con Educación Media. Un ejemplo para entender el fenómeno de la adaptación social"(PIIE). En: 1ra. Jornada Nacional de Capacitación Egreso y Empleo de Jóvenes en Situación Irregular. La Florida. Santiago, SENAME, Abril, 1986.

Maslankowsky, Willi. "La Formación Profesional en el Contexto de la Reforma Educativa Peruana". En: Boletín CINTERFOR/OIT, Montevideo, CINTERFOR, 1980. pp. 11-22.

McGinn, Noel y Ernesto Toro B. "Una Evaluación de la Educación Media Técnica en el Salvador". En: Revista Latinoamericana de Estudios Educativos, México, CEE, 1980. pp. 31.

Muñoz Izquierdo, Carlos y Pedro Gerardo Rodríguez. "Enseñanza Técnica: ¿Un Canal de Movilidad Social para los Trabajadores?". En: Revista Latinoamericana de Estudios Educativos. México, CEE, 1980. pp. 1-27.

Muñoz, Carlos; Casilla, Ma. de Lourdes. "Educación secundaria, Desarrollo Regional, Tecnologías de Producción y Mercado de Trabajo". En: Revista Latinoamericana de Estudios Educativos. México, CEE, 1982, Vol. XII, N° 2. pp. 9-44.

Paradise, Ruth. Socialización para el Trabajo: La interacción maestro-alumno en la escuela primaria. México, DIE, 1979. 126 p.

Parra, Rodrigo. Juventud y Sociedad en Colombia. Santiago de Chile, Comisión Económica para América Latina (CEPAL), 1984. 116 p.

Peralta, Teresita; Delgado E., Vilma; Esquivel, Juan Manuel. "Formación Académica, Situación Laboral y Profesional de los Profesores de Matemáticas del tercer ciclo de la Educación General Básica y de la Educación Diversificada". En: Revista de Educación. Universidad de Costa Rica, Costa Rica, Vol. VII, Nos. 1 y 2. pp.115-123.

Peraza, Freddy; Yelitza Amario, William Manríque y Víctor Díaz. Proyecto de Evaluación del Ciclo Diversificado en las Especialidades de Educación Industrial, Educación Agropecuaria, Educación Comercial y del Ensayo de las Nuevas Escuelas Técnicas. Caracas, Ministerio de Educación, 1980. 22p.

Piacente, Antonio P. "La Formación Profesional". En: Revista de Educación y Cultura, La Plata, N° 2-3, 1979. pp. 227-241.

Piletti, Nelson. La Profesionalización Obligatoria en la Enseñanza de Segundo Grado en el Brasil. Montevideo, CINTERFOR, 1984. N° 66. 162 p.

Pila, Carlos. Capacitación y Empleo en Juventud Popular: Los límites de la planificación. FLACSO, Santiago, 1985. 21 p.

Psacharopoulos, G. Evaluation of Curriculum Diversification in Colombia and Tanzania. World Bank, Discus, R.P.O. 672-45, Washington, D.C., November, 1984.

Ramírez, Franklin; Galo Henríquez; Simón Corral y Tomás Morocho. Estudio de Casos sobre "Aplicación de la Recomendación Revisada de la UNESCO Relativa a la Educación Técnica y Profesional". 3. Ecuador, Santiago, OREALC, 1982.

Reyes, Alvaro y Gómez, Marta Isabel. El Papel y las Posibilidades de la Educación Técnica: El caso de Colombia. Bogotá: CCRP, 1979. 67 p. + anx.

Reza Trosino, J. Carlos. "Hacia un Concepto Integral de Formación Profesional". En: Pedagogía para el Adiestramiento, México, ARMO, Vol. X, N° 39, 1980. pp 9-25.

Rossetti, Josefina. Emancipación y Trabajo: Un camino por hacer. CIDE, Santiago, 1984. 130 p.

Samper, Armando. Technical Cooperation in Latin America. A Case study of cooperation in Secondary Education in Chile. National Planning Association, 1957. Washington.

SENAI. "El Modelo Brasileño de Formación Profesional para la Industria. Servicio Nacional de Aprendizaje Industrial (SENAI)". Montevideo, En: Diálogo entre dos continentes: la formación profesional en Africa, América Latina y el Caribe. Cinterfor, 1980. pp. 11-17.

SENCE-INACAP. "La Formación Profesional en Chile". En: Diálogo entre dos continentes: la formación profesional en Africa, América Latina y el Caribe. Montevideo, Cinterfor, 1980. pp. 21-52.

Soto, Z. Chile: relación entre la oferta y la demanda de mano de obra con educación técnico-industrial, 1970-1980. CELADE, Serie C. N° 157, Julio, 1974.

Taborga, Mercedes. Formación de Recursos Humanos: Deber ser, realidad y perspectivas en Chile de la Educación Media. Corporación de Promoción Universitaria, Santiago, CPU, Documento de Trabajo N°218, 1980. 63 p. (mimeo).

Terra, Juan Pablo. "El Papel de la Educación en Relación con los Problemas del Empleo". En: Revista de la CEPAL, N° 21, Santiago, CEPAL, 1983. pp. 79-109.

Testa, Julio C. Trayectorias Laborales de la Enseñanza Técnica y Profesional en Paraguay. Asunción, Centro Paraguayo de Estudios de Desarrollo Económico y Social (CEPADES), 1982. 63 p.

UNESCO. Material Pedagógico Sencillo para la Enseñanza y el Aprendizaje en Materia de Nutrición. Serie de Educación sobre Nutrición. UNESCO. Paris, 1984. Ed. 84. WS. 89.

UNION PANAMERICANA. Estado Actual de la Educación Secundaria en la América Latina. División de Educación. Depto. de Asuntos Culturales. Washington D.C. 1957.

Valdivieso, Sergio Andrés. Evaluación Social de la Política de los Establecimientos Educacionales a las Municipalidades. Santiago, Universidad de Chile, 1981. 238 p. + 3 anx.

Vélez, Eduardo y Pablo Trouchón. "Logros Ocupacionales del Bachiller Colombiano: El caso de la Cohorte de 1978". En: Educación, Formación Profesional y Empleo, SENA, Ministerio de Trabajo y Seguridad Social, Servicio Nacional de Aprendizaje, SENA, Colombia. Mayo 1984. pp. 167-194.

Vera Godoy, Rodrigo. Disyuntiva de la Educación Media en América Latina. Buenos Aires: Proyecto DEALC, 1979, N° 19. 92 p. + anx. (mimeo).

Vera y Zapata, Rodolfo. La Educación Secundaria Técnica en México (estructura, administración, supervisión y evaluación). Santiago, OREALC, 1982. 144 p. (mimeo).

Wattiez de Cuevas, Rita Laura. Oportunidades Curriculares en el Area Técnica para la Mujer Rural Paraguaya. Asunción, Universidad Católica "Nuestra Señora de la Asunción". Facultad de Filosofía y Ciencias de la Educación, 1977. 192 p.

Winar, David L. Educación Técnica y Estructura Social en América Latina. Buenos Aires, UNESCO/CEPAL/PNUD, 1981. 58 p.

Zúñiga, Leonel y colaboradores. Estudio de Cambios e Innovaciones en la Educación Técnica y la Formación Profesional en América Latina y el Caribe. Santiago, UNESCO/OREALC, 1980. 93 p.

King,K.The Planning of Technical and Vocational Education and Training. IIEP-UNESCO.Paris.1984.

Oliveros A. La Educacion Secundaria en Iberoamèrica.OEI.Madrid. 1981.

UNESCO;Revised Recommendation concerning Technical and Vocational Education. Paris.19 November 1974.

9